

Safety & Ethics: Preventing Medical Errors #2

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Safety & Ethics

Preventing Medical Errors #2

Introduction

Preventable Medical Errors is one of the biggest concerns presently affecting US healthcare. Preventable Medical Errors include such things as adverse events (AEs), adverse drug events (ADEs), fatal drug events, misdiagnosis, incorrect treatment or surgery, failure to treat, treating the wrong patient, and preventable infections and deaths. These outcomes occur in clinics and institutions due to error and neglect. According HealthGrades, a leading third party evaluator of hospitals and resource for health professionals, nearly 1 million patient-safety incidents occurred in US hospitals between 2006-2008. The cost of preventable medical errors in hospitals is about \$9 billion annually. Adverse drug events are the most common health problem with as many as 1.5 million ADEs occurring in the US annually.

Clinical Practice – Part 2

Infectious Disease Control

Health care providers are exposed to a host of pathogens on a daily basis. Both resident and transient microorganisms occupy the surface of our skin and hair. Many of the microorganisms living on the surface of our body are capable of causing disease or infection if they penetrate deeper into underlying tissue and our immune system fails to fight them off.

Protecting ourselves and our patients is crucial to a safe and healthy clinical environment. Healthcare providers must be concerned with

preventing transmission and cross-contamination. The Occupational Safety and Health Administration has established Universal Precautions for this purpose. All healthcare providers need to understand the mechanisms of transmission and prevention of infectious diseases. Some primary routes of transmission are given below:

- **Airborne**—via aerosol and air droplets. Examples of pathogens include:
 - Tuberculosis
 - Influenza
 - Common cold
 - Streptococcus
 - Mononucleosis

- **Direct contact**—via transfer by hands, hair, countertops, etc. Examples of pathogens include:
 - Staphylococcus
 - Methicillin Resistant Staphylococcus Aureus (MRSA)

- **Bloodborne**—via blood, seminal fluids. Examples of pathogens include:
 - Hepatitis A
 - Hepatitis B
 - Hepatitis C
 - Human Immunodeficiency Virus (HIV)

- **Food or water borne**- via contaminated food or water. Examples of pathogens include:
 - Hepatitis E
 - Escherichia coli
 - Clostridium difficile

All healthcare providers should also be aware of nosocomial infections. Nosocomial infections are acquired in the hospital or clinical setting. They are a serious medical issue responsible for

20,000 deaths annually, and some reports indicate they can be responsible for as many as 99,000 deaths annually. Nosocomial infections are commonly caused by opportunistic pathogens such as:

- Enterococcus spp.
- Escherichia coli
- Pseudomonas spp.
- Staphylococcus aureus

Acupuncturists must be aware of the transmission risks of these pathogens and exercise caution to prevent cross-infection and transmission. During new patient intake, be certain to conduct a thorough health history. The best method to prevent nosocomial infections is to practice hand hygiene and to clean work surfaces.

Hepatitis and HIV Summary of Disease Characteristics

1. Hepatitis A (HAV)

15 – 45 days Incubation

Bloodborne, fecal contaminated food and water

Abrupt Onset

Vaccine Available

Not Chronic, common with children and young adults

2. Hepatitis B (HBV)

50 – 180 days Incubation

Bloodborne

Insidious (slow) Onset

Vaccine Available

Chronic 5 – 10% of cases

For more HBV Facts: Centers for Disease Control

<http://www.cdc.gov/hepatitis/HBV/index.htm>

3. Hepatitis C (HCV)

20 -90 days Incubation
Bloodborne
Insidious Onset
No Vaccine
Chronic 50% of cases

4. Hepatitis E (HEV)

30 – 40 days Incubation
Waterborne
Abrupt Onset
No Vaccine
Not Chronic, more prevalent in developing countries

5. Human Immunodeficiency Virus (HIV)

2 weeks – 10 years Incubation (50% of cases develop within 10 years; some occur in as much as 20 years from initial exposure)
Bloodborne
Asymptomatic or symptomatic; symptoms can resemble other common diseases like mononucleosis or a common cold
No Vaccine
Chronic can lead to Acquired Immune Deficiency Syndrome (AIDS)

For more HIV Facts: Centers for Disease Control

<http://www.cdc.gov/hiv/resources/qa/definitions.htm>

Preventing Diseases and Infections

To prevent diseases and infections, we also need to know the difference between **autogenous infections** and **cross-contamination**.

Autogenous Infections

Infections acquired from pathogens already on the individual (both

resident and transient microorganisms).

- **Resident** bacteria reside on the body surface, are persistent and make up the microflora of the skin, hair, and outer membranes. They cannot easily be washed off. Most of the time resident bacteria do not cause us any harm. However, when they are allowed to penetrate the surface of the skin such as through cuts or abrasions, resident microorganisms become opportunistic and can result in serious infections.
- **Transient** microorganisms temporarily reside on the skin and can be washed off. In contrast to resident microorganisms, transient microorganisms are short lived—usually hours to days. Transient microorganisms include bacteria, fungi, and viruses. Transient microorganisms spread in a linear fashion. For example, transient microbes may progress from fingers to palm to the wrists, and the mouth and nose when a person touches his or her face. Transient microorganisms, obviously, can spread autogenously or through cross contamination and can also result in serious infection.

The single most effective means to prevent infections is to practice proper hand sanitation. The hands must be cleaned before and after each patient treatment. Gloves are recommended in cases where contact with blood or other contaminants is possible. The World Health Organization recommends hand washing and hand hygiene as follows:

- **Hand Washing** – when the hands are **soiled**
Apply soap over entire hands and between fingers
Lather the hands for 40 – 60 seconds
Rinse running warm water
Dry with a clean towel or air dry
- **Hand Hygiene** – when the hands are **not soiled**
Apply sanitizing products, such as an alcohol-based cleaner
Rub for 20 – 30 seconds
Air dry

Cross-contamination and transmission

Cross-contamination involves actively managing biohazards and preventing passing of pathogens from person-to-person. **Cross contamination** occurs when diseases are spread from person-to-person or via contaminated materials such as sharps, needles, instruments, soiled gowns, etc. Transmission occurs when an individual is directly exposed to pathogens. Blood-to-blood contact is the most common route of transmission for the bloodborne pathogens HBV and HIV. In the acupuncture setting, the typical route of infection for these diseases is percutaneously (i.e., through needlesticks).

The Occupational Safety and Health Administration requires all healthcare professionals to practice universal precautions to prevent the spread of bloodborne pathogens. Employers are required to have an Exposure Control Plan and to train employees at initial hiring and annually on implementation of the plan's procedures.

Universal Precautions Review – The purpose of universal precautions is to reduce the occupational risk of infection. Healthcare workers must assume all patients are potential carriers HBV or HIV and take precautions to protect themselves and prevent the transmission of these diseases. Healthcare workers should review the universal precautions and components of their employer's Exposure Control Plan annually.

“RULE OF THUMB: APPLY UNIVERSAL PRECAUTIONS TO ALL PATIENTS.”

Use universal precautions when exposed to:

- Blood (or visible blood in body fluids)
- Body fluids (such as semen, vaginal secretions, tissues, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, and amniotic fluid)

The Centers for Disease Control recommend that all healthcare workers protect themselves from possible infections by taking several steps:

- Practice hand hygiene before and after direct patient contact, or immediately after gross contamination.
- Wear the appropriate personal protective equipment (i.e., gloves, gowns, protective eyewear) with the risk of exposure.
- Gloves should be worn whenever there is a risk of direct contact with blood or body fluids, and the hands washed after removing the gloves.
- Masks should worn whenever there is a risks of splattering blood (i.e., when bloodletting) or with a patient who has active tuberculosis.
- Use protective barriers, such as plastic-lined paper tray covers.
- Dispose of sharps in the appropriately labeled or color coded sharps disposal container. **Never overfill sharps containers.**
- Disinfect treatment room surfaces daily.
- Clean and sterilize equipment contaminated with blood or body fluids, or use disposal equipment.
- To clean blood or body fluid spills, use a 1:100 solution of sodium hypochlorite or bleach (1/4 cup bleach in 1 gallon of water) to clean smooth surfaces. Discard any bleach solutions over 24 hours old and prepare fresh solutions daily.
- Dispose of all contaminated materials and infectious waste according to OSHA, state, and local requirements.
- Healthcare workers with open lesions, dermatitis, or skin irritations should avoid direct patient care or handling

contaminated equipment.

- Respond immediately to injuries with the appropriate first aid and follow-up with an incident report.

Frequent hand washing/proper hand hygiene is the single most important step to prevent the transmission of infection in the healthcare setting.

Case Study 4

Tina is the first patient of the day. As she is getting off the table, she steps on a needle on the floor. She experiences a needlestick that goes into her foot about one inch, and she bleeds when the needle is removed. **What should happen in this scenario?**

Discussion

First, the owner of the clinic should actively ensure that dropped needles are removed from the floor immediately. The acupuncture treatment rooms should be checked after each patient and at the end of the day for dropped needles. Needles on the floor should be picked up using tweezers or a magnet and disposed of immediately in the sharps container. Dropped needles should never be picked up with bare hands.

In this case, the appropriate first aid should be given, an incident report completed, the patient records documented thoroughly, and the malpractice insurance carrier contacted. The patient should be encouraged to receive follow-up testing and HBV vaccination. The needle was contaminated, so in this case, the patient is at risk for an infection. The question is, “was the needle from this patient or a previous patient”? If uncertain, the BEST precaution is to assume a risk for bloodborne pathogen transmission and follow up accordingly with the necessary testing and vaccinations. The acupuncturist should also follow any additional state or local requirements.

Section Review Exercises

(Answers on the page following these questions.)

1. Which disease is an airborne transmitted disease?
 - a. Mononucleosis
 - b. HBV

- c. HIV
 - d. HEV
2. Which Hepatitis virus is often caused by contaminated food or water and common among children and young adults?
- a. HBV
 - b. HAV
 - c. HEV
 - d. HCV
3. The incubation period for HBV is:
- a. 7 – 14 days
 - b. 30 – 60 days
 - c. 50 – 180 days
 - d. 180 – 360 days
4. Which statement is true about HIV?
- a. It kills patients immediately.
 - b. It can have a very lengthy incubation period.
 - c. There is a vaccination available in the US.
 - d. The virus always produces symptoms.
5. Blood spills should be cleaned with:
- a. Alcohol wipes
 - b. 1:1000 solution bleach
 - c. 1:100 solution bleach
 - d. Soap and water

6. The single most effective method to prevent the transmission of infectious diseases is to:
 - a. Wash hands frequently
 - b. Use protective barriers
 - c. Dispose of needles properly
 - d. Use disposal products

7. Hands should be rubbed with alcohol-based or similar hand sanitizers for at least:
 - a. 5 – 10 seconds
 - b. 10 – 15 seconds
 - c. 15 – 20 seconds
 - d. 20 -30 seconds

Answers to Review Exercises

1. Which disease is an airborne transmitted disease?

Correct answer: a. Mononucleosis

Mononucleosis (or mono) is a highly infectious disease that can incapacitate a healthcare worker for months. It is an airborne disease.

2. Which Hepatitis virus is often caused by contaminated food or water and common among children and young adults?

Correct answer: b. HAV

Hepatitis A is transmitted via blood or contaminated food and water. It is common among children and young adults, and produces digestive symptoms, general fatigue, and jaundice.

3. The incubation period for HBV is:

Correct answer: c. 50 – 180 days

HBV has a longer incubation period than the other forms of the Hepatitis virus. The incubation period for HBV is 50 -180 days.

4. Which statement is true about HIV?

Correct answer: b. It can have a very lengthy incubation period.

The HIV incubation period can be up to a decade or more. It does not kill patients, but can lead to AIDs which is a serious, chronic condition.

5. Blood spills should be cleaned with:

Correct answer: c. 1:100 solution bleach

All blood and body fluid spills should be cleaned from surfaces using a solution of 1:100 bleach. Spills should be cleaned immediately.

6. The single most effective method to prevent the transmission of infectious diseases is to:

Correct answer: a. Wash hands frequently

The single most important step healthcare workers can take to prevent the spread of infection is to wash their hands. Many clinically acquired diseases are transmitted via direct skin contact.

7. Hands should be rubbed with alcohol-based or similar hand sanitizers for at least:

Correct answer: d. 20 – 30 seconds

Hand hygiene practices allow the use of alcohol-based cleaning agents. Hands should be rubbed with products for 20 – 30 seconds.

Clinical Practice – Part 3

So far in this course, we have covered legal and regulatory concerns, general practice competencies, such as communication and referrals, and we have covered infection control. In this section of the course, we will now look at acupuncture treatment and herbal safety. Moxibustion and cupping will also be addressed.

The Nei Jing says curing “a disease after it appears is like digging a well after one was thirsty.” The ancient Oriental medicine physicians believed in averting problems before they occurred. While this statement from the Nei Jing is mainly in reference to illness prevention, modern practitioners can also extend the idea to safety and accident prevention.

Acupuncture

Compared to biomedical interventions, acupuncture is relatively safe. The estimates for major complications due to acupuncture are 1:10,000 to 1:100,000. In a 1997 report, the National Institutes of Health Consensus Conference stated that “one of the advantages of acupuncture is that the incidence of adverse effects is substantially lower than that of many drugs or other accepted procedures for the same conditions.”

The common risks involved with acupuncture are related primarily to needle insertion and include serious and minor adverse events. Needling carries the risk of puncturing unintended anatomical structures, such as arteries, veins, and organs. The most serious adverse event is to puncture vital organ resulting in:

- A pneumothorax
- Spinal cord injury
- Cardiac tamponade

Such events, however, are rare. Acupuncture training involves teaching future practitioners anatomy and physiology to aid in proper point location and prevention of injury. Research has shown the incidence of serious adverse events is lower in acupuncturists who have trained longer than those with less formal training or experience.

Minor adverse events are more common in the acupuncture setting and include:

- Minor bruising
- Bleeding
- Dizziness
- Transient hypotension
- Discomfort or local pain
- Pruritus
- Redness
- Sweating
- Syncope
- Broken and stuck needles

“RULE OF THUMB: NEVER USE BENT OR BROKEN NEEDLES.”

Ten Counter and Preventative Measures for Acupuncture

1. Avoid injury to vital organs, arteries, and nerves by reviewing the point location for less used points. Use extra caution with points located near the eye. If an organ is punctured, call 911.
2. Exercise additional caution with thin or elderly patients, and patients with a weak constitution.
3. Avoid contraindicated points for pregnant patients: LI 4, GB 21, SP 6, BL 60, and BL 67.
4. Recognize signs of transient hypotension (i.e., low blood pressure) and elevate the patient’s legs. This condition primarily occurs when a patient is lying supine and can be remedied by raising the patient’s legs.

5. Use thinner needles for needle-sensitive patients.
6. Never use bent or broken needles. Remove bent needles slowly by following the course of the bend. Avoid stuck and broken needles by having the patient release muscle tension before insertion.
7. Encourage patients to eat before treatments. Avoid needling patients who have low blood sugar or have an empty stomach, as these conditions can contribute to fainting. If fainting does occur, press a resuscitation point, remove the needles, have the patient sit or lie down, and provide crackers and juice. If the fainted patient does not respond to these measures, call 911.
8. Keep current on CPR and first aid. **Note:** The steps for adult CPR have changed and chest compression is now the first step instead of airway (C-A-B instead of A-B-C). Refer to <http://guidelines.ecc.org/#>
9. Do not needle intoxicated patients or patients in altered states of consciousness.
10. Do not retain needles in infants or toddlers.

Moxibustion

Many different types of moxibustion are now available: traditional loose moxa, moxa sticks, moxa attached to sticky paper, smokeless moxa, and even moxa ointments and liquids, which can be applied topically. Because moxibustion commonly involves burning the herb near or directly on the skin, this therapy poses several risks:

- Burns
- Smoke inhalation

- Herb sensitivity (Artemesia Vulgaris, mugwort sensitivity)

Some patients and co-tenants in a clinic's building may be sensitive to moxa, so the acupuncturist needs to decide which form of moxa is the best to use. Also, if moxa is used in the clinic, an air purifier is recommended. Be certain to use a medical grade HEPA system for purifying the air.

Patients receiving moxa treatments should be warned of the potential for burns, redness, and heat sensitivity BEFORE using moxibustion on them. As a first aid remedy, moxa burn cream or ointment should be kept in the clinic's first aid kit. To prevent burns, acupuncturists should exercise the following cautions:

- Never leave burning moxa on a patient unattended.
- Do not allow moxa to burn down to close to the skin.
- Do not pass moxa warmers too close to bare skin.
- Use protectors under needles when applying the needle warming method.
- Remove moxa embers from the needle with a moxa spoon or tool.
- Always properly extinguish burning moxa after it's no longer needed.

Cupping

Cupping technique carries a risk for bruising. The bruising with cupping is unavoidable and part of the actual therapy, so patients must be advised of this outcome before cupping is used. The bruising can be easily misinterpreted as an intended injury.

Cupping is not recommended in the following cases:

- Over the abdomen and lower back of pregnant patients
- Over skin that is affected by allergies, sores, or ulcers or any other abnormalities

- For patients with high fever, convulsions, or blood dyscrasias
Note: Blood dyscrasias is the pathologic conditions or disorders such as leukemia or hemophilia in which the constituents of the blood are abnormal or are present in abnormal quantity.

Herbal Therapy

Other herbal safety courses are available from this CEU provider and recommended for an in depth understanding of herbal and drug safety. In this course, we simply want review certain issues related to herbal safety and ways to minimize clinical mistakes.

Acupuncturist should always ask their patients for a list of the Western pharmaceuticals they are taking and keep this information in the patients' records. About 1.5 million adverse drug events occur in the US every year. Most of these occur due to miscommunication, unknown allergies, and prescription errors.

Acupuncturists should always check for drug toxicities and herb-drug interactions. Also, as a precaution, acupuncturists should remember certain herbal toxicities. For instance, the following are five toxic substances practitioners should be aware of:

1. **Unprepared Rhizoma pinelliae ternatae (Ban Xia)**
Identified toxin: Conitine
Causes respiratory suppression
2. **Unprepared Radix laterali aconite carmichaeli (Fu Zi)**
Identified toxin: Acontine
Causes neurological and cardiac suppression
3. **Buthus martensi (Quan Xie)**
Identified toxin: Katsutoxin
Causes respiratory suppression

4. **Rhizoma arisaematis (Tian Nan Xing)**
Identified toxin: Triterpenoid saponins
Nephrotoxin and is necrotic to mucus linings
5. **Radix aristolochiae fangchi (Guang Fan Ji)**
Identified toxin: Aristolochic Acids
Causes interstitial renal fibrosis

Actions to Promote Herbal Safety

1. Review allergies with patients before administering new formulas.
2. Obtain a list of all Western pharmaceuticals or other supplements.
3. Check drug-herb interactions and herb-herb interactions.
4. Consider contraindications when selecting herbs and formulas (i.e., pregnancy, heat conditions, cold conditions, deficiency, excess conditions, Spleen deficiency, Qi deficiency, phlegm retention, etc.).
5. Ensure proper dosages are used (i.e., children, debilitated or weak patients).
6. Ensure patients understand how to decoct and prepare herbal formulas.
7. Ensure patients understand how to and when to take herbs, or apply topical compounds.
8. Provide proper follow-up and re-assessment. Make certain the patient is not experiencing complications or allergic reactions.

Case Study 5

Alfred is a new acupuncturist in a community clinic. Treatments are provided in a quiet room with recliners. He has been treating a patient named Sarah for TMJ and insomnia once a week for the past two months. Today, during her appointment, Sarah indicates she is 6 weeks pregnant. Alfred usually needles PC6, Anmian, Yintang, LI 4, SJ 19, ST 5 – ST 7, and massages her neck and jaw muscles. She has not been taking any herbs, but does use a diffuser with essential oils at night to help her sleep. **What are the safety concerns for this patient?**

Discussion

The primary safety concerns are contraindicated or strong points and essential oils with a hormonal effect. The acupuncturist should modify the treatment plan by excluding contraindicated points for pregnant patients, i.e., LI 4. Nei Guan (PC 6) is a powerful point, but research has indicated it does not have a teratogenesis effect and in fact is recommended for calming a restless fetus. Also, caution should be taken with certain essential oils that have a hormonal effect, such as Clary Sage, which is commonly used by women.

Section Review Exercises

(Answers on the page following these questions.)

1. All of the following areas carry caution for deep needling (> 1 inch) except for:
 - a. Inguinal
 - b. Subclavicular
 - c. Ocular
 - d. Peroneal

2. Acupuncture risks can be minimized by:

- a. Having patients eat before treatments
- b. Using bent needles
- c. Using strong stimulation with weak patients
- d. Needling LU 1 deeply and perpendicularly

3. Moxibustion carries the risk for:

- a. Bleeding
- b. Bruising
- c. Smoke inhalation
- d. Transient hypotension

4. A general precaution to take when administering herbs to young children is to

- a. Follow correct dosage for their age
- b. Ensure patients know how to decoct formulas
- c. Ensure patients know when and how to take herbs
- d. Avoid prescribing herbs contraindicated for pregnancy

Answers to Review Exercises

1. All of the following areas carry caution for deep needling (> 1 inch) except for:

Correct answer: d. Peroneal

The peroneal region is the lateral compartment of the lower leg. Common points in this region include GB 34 and ST 36 – ST 40. These points can be safely needled to 1 inch.

2. Acupuncture risks can be minimized by:

Correct answer: a.

Having patients eat before treatments Patients should not receive treatments on an empty stomach, especially patients who have hypoglycemia. The acupuncturist can minimize the risk of fainting by having patients eat before treatments.

3. Moxibustion carries the risk for:

Correct answer: c. Smoke inhalation

Moxibustion carries the risk for smoke inhalation and burns. Also, some individuals are sensitive to the actual herb *Artemisia Vulgaris*, mugwort.

4. A general precaution to take when administering herbs to young children is to:

Correct answer: a. Follow correct dosage for their age

When administering herbs to young children, the practitioner should check guidelines for age-related dosages. The other answer choices are common issues for adult patients.

Signs for Referral

The acupuncturist can use clarifying questions to help decide when to refer a patient. However, the BEST MEASURE the acupuncturist can take is to actively MONITOR patients for medical red flags. Some situations when an acupuncturist should refer patients include:

- Sudden chest pain (coronary occlusion, pneumothorax, or aneurysm)
- Excessive hemorrhaging (shock risk)
- Recent head trauma (concussion, brain injuries)
- Persistent cough (pleural effusion, lung cancer)
- Severe abdominal pains (appendicitis, ruptured abscess)
- Gastro-intestinal bleeding from upper or lower GI tract
- New onset of severe headache (aneurysms, brain tumor)
- Seriously Infected wounds (any infected foot ulcers in diabetic patients should be referred)
- Persistently swollen lymph nodes, difficulty swallowing, breast lumps, abdominal masses, unexplained weight loss (cancer)
- Unexplained weight loss, thirst, frequent urination (Diabetes Type II)
- Persistent tenderness and swelling in lower leg or thigh (thrombophlebitis, peripheral vascular disorder)
- Visual disturbances or severe redness in eyes (glaucoma)
- Altered levels of consciousness (stroke or impending coma)
- Broken bones or dislocated joints that need immobilizing
- Suicide risks

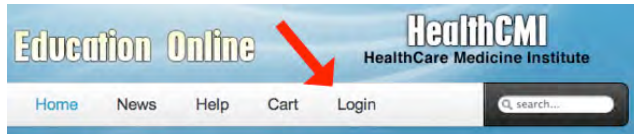
- Severe depression or emotional disturbance which may require behavioral therapy or counseling
- Children with neurological deficits, developmental delays, or learning disabilities
- Sudden onset of new neurological problems
- Sudden respiratory distress
- Signs of an undiagnosed highly infectious disease (Hepatitis, HIV, tuberculosis)
- Spotting during pregnancy or patients with pre-eclampsia who develop severe headaches and blurred vision (miscarriage risk)
- Post-menopausal vaginal bleeding
- Fever of unknown origin
- Frequent syncope or light-headedness (brain tumor)
- Anaphylaxis (anaphylactic shock)
- New occurrence of exophthalmos/enlarged eyes or goiter (Grave's disease)
- Elder or child abuse (needs to reported to the proper authorities)

“RULE OF THUMB: WHEN A SITUATION IS URGENT, THE ACUPUNCTURIST SHOULD TALK TO THE REFERRED TO PROVIDER OR AUTHORITY DIRECTLY VIA TELEPHONE OR IN PERSON.”

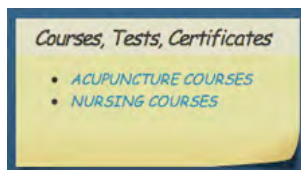
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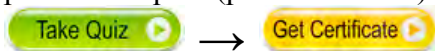


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- Click on "Acupuncture Courses"
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Note: the green *Take Quiz* button changes to a gold *Get Certificate* button once you have passed the quiz. (pictured below)



Books

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Links

1. American Heart Association New CPR Guidelines, <http://guidelines.ecc.org/#>
2. Centers for Disease Control, HBV Facts, <http://www.cdc.gov/hepatitis/HBV/index.htm>
3. Centers for Disease Control, HIV Facts, <http://www.cdc.gov/hiv/resources/qa/definitions.htm>
4. Centers for Disease Control, Hand Hygiene Site, <http://www.cdc.gov/handhygiene/>

5. National Suicide Prevention,
<http://www.suicidepreventionlifeline.org/>

Summary of Medical Error Prevention

Safety Rules

SAFETY RULES OF THUMB

- *“Primum non nocere” - first do no harm.*
- *Develop an attitude of safety.*
- *Avoid mistakes from poor communication by remembering the four diagnostic guidelines of TCM: Asking, Observing, Listening, and Feeling.*
- *Be proactive when the situation is urgent. Talk to the referred to provider or authority directly via telephone or in person.*
- *Apply universal precautions to all patients.*
- *Never use bent or broken needles.*
- *Keep a list of emergency numbers and helpful websites handy and up-to-date.*

World Health Organization Recommendations

THE WORLD HEALTH ORGANIZATION RECOMMENDS HAND WASHING AND HAND HYGIENE AS FOLLOWS:

Hand Washing – when the hands are soiled

- Apply soap over entire hands and between fingers
- Lather the hands for 40 – 60 seconds
- Rinse with running warm water
- Dry with a clean towel or air dry

Hand Hygiene – when the hands are not soiled

- Apply sanitizing product, such as an alcohol-based cleaner
- Rub for 20 – 30 seconds
- Air dry

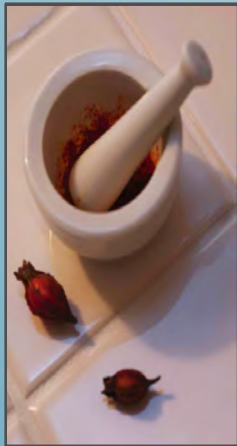
Preventative Measures

TEN COUNTER AND PREVENTATIVE MEASURES FOR ACUPUNCTURE

1. Avoid injury to vital organs, arteries, and nerves by reviewing the point location for less used points. Use extra caution with points located near the eye. If a vital organ is punctured, call 911.
2. Exercise additional caution with thin, elderly and patients with a weak constitution.
3. Avoid contraindicated points for pregnant patients: LI 4, GB 21, SP 6, BL 60, and BL 67.
4. Recognize signs of transient hypotension (i.e., low blood pressure) and elevate the patient's legs.
5. Use thinner needles for needle sensitive patients.
6. Never use bent or broken needles. Avoid stuck and broken needles by having the patient release muscle tension before insertion.
7. Encourage patients to eat before treatments. Avoid needling patients who have low blood sugar or have an empty stomach.
8. Keep current on CPR and first aid.
9. Do not needle intoxicated patients or patients in altered states of consciousness.
10. Do not retain needles in infants or toddlers.

Herbal Safety

ACTIONS TO PROMOTE HERBAL SAFETY



1. Review allergies with patients before administering new formulas.
2. Obtain a list of all Western pharmaceuticals or other supplements.
3. Check drug-herb interactions and herb-herb interactions.
4. Consider contraindications when selecting herbs and formulas (i.e., pregnancy, heat conditions, cold conditions, deficiency, excess conditions, Spleen deficiency, Qi deficiency, phlegm retention, etc.).
5. Ensure proper dosages are used (i.e., children, debilitated or weak patients).
6. Ensure patients understand how to decoct and prepare herbal formulas.
7. Ensure patients understand how to and when to take herbs, or apply topical compounds.
8. Provide proper follow-up and re-assessment. Make certain the patient is not experiencing complications or allergic reactions.

New CPR Guidelines

NEW CPR GUIDELINES: COMPRESSION FIRST

The majority of cardiac arrests occur in adults. Research has shown that early defibrillation is a critical element in survival. So, the American Heart Association has revised the steps for adult CPR. CHEST COMPRESSIONS ARE NOW FIRST.

- Remember C-A-B instead of A-B-C.
- Refer to <http://guidelines.ecc.org/#>



Hepatitis and HIV

BLOODBORNE PATHOGEN SUMMARY

Hepatitis A (HAV)	Hepatitis B (HBV)	Hepatitis C (HCV)	Hepatitis E (HEV)	Human Immunodeficiency Virus (HIV)
<ul style="list-style-type: none"> • 15 – 45 days Incubation • Bloodborne, fecal-contaminated food and water • Abrupt Onset • Vaccine Available • Not Chronic, common in children and young adults 	<ul style="list-style-type: none"> • 50 – 180 days Incubation • Bloodborne • Insidious (slow) Onset • Vaccine Available • Chronic 5 – 10% of cases 	<ul style="list-style-type: none"> • 20 -90 days Incubation • Bloodborne • Insidious Onset • No Vaccine • Chronic 50% of cases 	<ul style="list-style-type: none"> • 30 – 40 days Incubation • Waterborne • Abrupt Onset • No Vaccine • Not Chronic, more prevalent in developing countries 	<ul style="list-style-type: none"> • 2 weeks – 10 years Incubation • Bloodborne • Asymptomatic or symptomatic • No Vaccine • Chronic can lead to Acquired Immune Deficiency Syndrome (AIDS)

Links

IMPORTANT LINKS

1. American Heart Association New CPR Guidelines,
<http://guidelines.ecc.org/#>
2. Centers for Disease Control, HBV Facts,
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3. Centers for Disease Control, HIV Facts,
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4. Centers for Disease Control, Hand Hygiene Site,
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5. National Suicide Prevention,
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*You have successfully downloaded the course material. Please remember to **SAVE** this document (if your browser has not done this already). The SAVE option is usually located in the FILE menu of your web browser or move the cursor to the bottom of your browser screen for a save option. To save on an iPhone, tap on the screen then tap on "Open in iBooks."*

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Follow the links. Courses can be downloaded to multiple locations, quizzes can be taken (and re-taken if needed), and certificates of completion can be saved and printed.

Note: First, select the Quiz button. Next, it changes to the Take Test button. This changes to a get Certificate button once you have passed the test.

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