

**Acupuncture Techniques I
Exam 1
Study Questions**

What is the transmission method for Hep A (HAV)?

Fecal/oral

What is the incubation period for Hepatitis A and what kind of onset can you expect?

15-50 days with abrupt onset

What are the symptoms for Hepatitis A?

Mostly digestive:

- ◆ abdominal discomfort
- ◆ low appetite
- ◆ nausea
- ◆ jaundice
- ◆ fatigue

Which of the Hepatitis viruses go chronic?

Hepatitis B and Hepatitis C

Which of the Hepatitis viruses has a vaccine?

Hepatitis A and B

Is there a vaccine for Hepatitis C?

No.

What is the transmission method for Hepatitis B?

Bloodborne

How long can the Hep B virus survive outside of the host?

Can survive for 1 week even in dried blood.

What is the incubation period for Hepatitis B and what kind of onset can you expect?

Incubation is 50-180 days
Onset is insidious

What kind of symptoms does one experience with HBV?

- ◆ Mild flu-like symptoms at first
- ◆ Gradually poor appetite or appetite loss
- ◆ Abdominal pain
- ◆ Joint pain or rash
- ◆ Chills
- ◆ Diarrhea

all lasting 2-6 weeks

- ◆ Extreme fatigue
- ◆ Depression

All lasting several months

- ◆ Liver cancer

Not a guarantee, but common after HCV infection.

What percentage of people with HBV are symptom free?

30%

What percentage of people with HBV get a chronic infection?

50%

What percentage of ppl with HBV make a full recovery?

70%

How long is one contagious even after recovery?

3+ months

What is the rule for treating people with HBV?

You often cannot tell who has it and who does not since 30% are symptom free, you therefore treat all patients as if they are infected.

What form of treatment is best for HBV patients?

Acupuncture to reduce stress, induce relaxation, and improve energy. Herbs to treat liver and infection.

What is the transmission method for Hepatitis C (HCV)?

HCV is a bloodborne pathogen

What is the incubation period and expected onset of HCV infection?

20-90 day incubation with insidious onset

What percentage of liver patients have HCV?

40-60%

What percentage of HCV patients get a chronic infection of HCV?

50%

What are the symptoms of HCV infection?

- ◆ Anorexia
- ◆ Nausea
- ◆ Vomiting

- ◆ jaundice

What vaccine is available for HCV?

There isn't one

Which of the Hepatitis viruses is found concurrent with HBV?

Hepatitis D Virus (HDV)

What is the incubation and transmission method for HDV (hepatitis D virus)?

Unknown

What type of onset can one expect in a Hepatitis D virus infection?

Unknown, since it is concurrent with HBV.

What is the method of transmission for Hepatitis E (HEV)?

Fecal/oral transmission

What is the expected incubation and onset for HEV?

Incubation is 15-60 days and onset is abrupt.

What are the symptoms for HEV?

Fever
Malaise
Nausea
Poor appetite
jaundice

Does HEV become chronic?

No

Where is HEV most common and how is it prevented?

Most common in developing countries,
best prevented with cleanliness.

Can an asymptomatic patient transmit the virus?

yes

How is HIV transmitted?

It is a blood borne pathogen, but can be transmitted by blood, semen, vaginal secretions, mucus

What are considered non-risk behaviours for HIV?

Handshake
Touching
Hugging
Holding hands
Casual contact

What precautions should you take with HIV infected patients?

First, you can't tell, so treat all patients the same. Specifically, avoid touching exposed wounds, mucus, blood.

Who is most at risk at this point for HIV infection?

- ◆ IV drug users
- ◆ Sex workers
- ◆ Transfusion recipients
- ◆ Gay males
- ◆ Anyone participate in unsafe sex
- ◆ Transplacental transmission
- ◆ Health care workers

Which has the greater risk: HBV or HIV?

HBV

What is the incubation for HIV?

Up to 15 years

What are the initial infection symptoms?

Though many patients show no initial symptoms, one can have 2-4 weeks of a flu-like set of symptoms, sort of like mono. Resolution is spontaneous

What are later infection symptoms of HIV?

Fever
Malaise
Body aches
Wasting
Night sweating
Weight loss
Diarrhea

What kind of complications can accompany HIV?

- ◆ HIV encephalopathy
- ◆ Myelopathy
- ◆ Peripheral neuropathy
- ◆ Dementia with mem loss
- ◆ Apathy
- ◆ Depression
- ◆ Motor dysfunction
- ◆ Opportunistic infections
- ◆ Neoplastic disorders
- ◆ TB
- ◆ Herpes
- ◆ Staph
- ◆ Hepatitis
- ◆ Pneumonia, which is a frequent cause of death.

Are there any extra precautions you should take with known HIV patients?

Mask, gloves both for your safety and for theirs as they are prone to opportunistic infection.

What particular skin dangers should acupuncturists be aware of?

Any broken skin on hands: rashes, hangnails, non-intact fingers/cuticles/skin.

What is the rule about blood, body fluids, (used) needles and gloves?

Treat them as if they are infected!!!

Define sterilization.

Procedures to destroy *all* microbials including viruses. Applies to instruments and surfaces that might come into contact with sterile instruments.

How does a sterilant differ from an antiseptic?

A sterilant is a product which destroys *all* microbial life and is designed for non-living surfaces. An antiseptic is a product designed to *reduce* the density of microbial life on living tissue.

How does an antiseptic differ from a disinfectant?

An antiseptic reduces the density of microbials on living tissue. A disinfectant reduces or destroys the density of microbials on non-living surfaces.

Define aseptic technique

Techniques for preventing infection during invasive procedures such as acupuncture. Aseptic technique differs for different kinds of procedures.

What is disinfection?

Use of chemicals and procedures to destroy or reduce number of pathogens on inanimate objects.

What is clean technique?

Techniques which reduce the risk of infection of patients and staff members by killing or reducing the strength of pathogens. This reduces the chances of pathogens transmitting to people.

Define clean field.

Area prep'd to contain acupunc equipment so sterility of needles is preserved. Applies both to the working area, surfaces, patient's skin, and anything touching patient's skin.

Which kind of soap is best: liquid or solid?

Liquid. Solid soap sits in water after you use it which renders it contaminated.

How often should you clean working surfaces and with what?

At least once per day (or whenever visibly contaminated) with disinfectant.

A supine placement of the patient is suitable for what kinds of acupuncture treatment?

Facial, frontal, chest and ab, anterior and lateral aspects of lower extremities.

For what kinds of treatment should you place your patient prone (face down)?

For treatments of the occipital, neck, lumbodorsal, and posterior aspects of the lower extremities.

When should you place your patient on their side?

When treating the lateral side of the body only.

When is it a good idea to treat your patient sitting up (i.e., in a massage chair)?

For head, back and upper extremities. Can also be really good for people that are overweight or have heavily developed shoulders—when these people lay down prone the backs of their necks disappear!

What is the single most important procedure for preventing infection in a health care situation?

Handwashing.

When do you wash your hands when dealing with patients? (7)

- ◆ Before a treatment
- ◆ Immediately before an acu procedure
- ◆ After contact with
 - Blood
 - Body fluids
 - Obvious environmental contaminants
- ◆ Whenever your hands get contaminated during treatment
- ◆ Between patients
- ◆ At the end of the treatment
- ◆ After removing PPE (personal protective equipment)

List the procedure for hand washing

- ◆ Wash surface of hands between fingers, around/under fingernails, above wrist
- ◆ Lower hands so soap/water drains off fingertips during rinse.

- ◆ Soap/wash 2ce for at least 10 sec
- ◆ Turn off tapw/towel or elbow

How should you keep fingernails for best hygiene?

Short, clean.

How do you clean hands if there is no sink available?

Alcohol based hand disinfectants
Antiseptic hand cleaners
Antiseptic towelettes

What do you do if your hands are contaminated after washing?

Clean fingertips with alcohol or alcohol based rub, germicidal scrub or antiseptic towelette.

What do you in addition to washing hands for immunocompromised patients?

Germicidal soap or alcohol-based hand disinfectant.

What percentage alcohol do you use to prep needle site for insertion?

70%. (90% dries too fast)

What do you use for insertion site prep when you have an immunocompromised patient?

1. Iodophor (i.e., betadyne) followed by
2. alcohol swab or benzylconium chloride

What are the proper ways to swab an insertion site?

In such a way that you only touch the area once. You can either:

1. wipe once in one direction
2. wipe in a spiral from in to out

Do you have to use a new swab for each insertion point?

Not necessarily. You can use the same swab for points in the same general area.

Why do you let the alcohol dry on the insertion site rather than artificially drying it?

1. Reduce discomfort on needling
2. reduce possibility of injecting minute contaminants suspended in alcohol
3. Alcohol is more effective as an antiseptic if it has a longer drying period.

Can you palpate an insertion site once you have cleaned it?

Yes, but only if your hands have not been contaminated since your prepped the site. If they have, rewash/clean them again before palpating or picking up a needle.

What precautions must you take with the needle shaft?

The shaft must remain sterile.

1. Don't let the needle shaft touch the part of a packet you touched when you opened it.
2. Don't touch the shaft when you are inserting or manipulating the needle.
3. If you must support the shaft during manip/insert, use the sterile inside of a sterile gauze pad.

Can you re-use a guide tube?

Yes. They must be sterile at the beginning of the treatment for each patient. One guide tube per patient is acceptable.

Where do you put a used guide tube if you're using it more than once for a single patient?

You can place it on the clean field between uses as long as it remains clean.

If you are using multiple sterile needles with a single guide tube how do you insert the needle into the tube?

Drop the needle into the tube handle first.

When do you use gloves during acupuncture procedures?

- ◆ During procedures like bleeding where there is greater risk of blood/fluid contact.
- ◆ Working w/patients with open lesions or weeping exudates.
- ◆ When practitioner has cuts, abrasions, chapped hands, etc. and they are located where they pose a hazard.
- ◆ When palpating/needling in mouth/genital area.

Is it always necessary to use gloves during acupuncture procedures?

No, not in the absence of significant bleeding.

Do gloves prevent needle sticks?

No. Only proper handling procedures prevent sticks.

When do you replace disposable gloves?

- ◆ As soon as practical when they are contaminated
- ◆ As soon as possible if torn, punctured, compromised.

What do you do with used needles?

Isolate them until you can either dispose of them or sterilize them.

When should you replace a sharps container?

When 3/4 full.

What do you do in the event of needle spills or dropped needles? 5 steps.

1. Pick up with gloves and hemostats/tweezers
2. Clean spill with soap and water
3. Wipe exposed surfaces with germicide (like bleach)
4. Discard all clean up materials
5. Wash hands

What do you do in the event of bleeding during cupping?

1. Gather gloves/cleaning materials
2. put on gloves
3. Remove cups in such a way that blood or fluids do not spread or splash
4. Stop bleeding with pressure
5. Clean up bleeding that has occurred.
6. Isolate cups immediately
7. Handle and dispose of any materials used in cleaning as biohazardous waste.
8. Sterilize cups with double sterilization method using chemical disinfectants.

What is the rule for disposable and/or non-sterilizable plastic or rubber cupping equipment?

Only use these on one patient.

How do you clean up a spill of blood or body fluids?

1. Wear disposable, waterproof gloves
2. Clean the spill once with soap and water
3. Wipe all exposed surfaces with a germicide
4. Dispose of all materials used in cleanup by double wrapping.
5. Wash hands.

What is the definition of “biohazardous waste”?

Any solid or liquid waste that may prevent a threat of infection to humans.

How do you package biohazardous waste for disposal? What differs from this rule?

Needles differ—they go in their own sharps container.

Package everything else in red, impermeable, polyethylene or polypropylene bags and seal it.

How do you dispose of used needles?

1. separate from all other waste
2. place in leak-resistant, puncture-resistant, rigid container
3. Seal and label properly.

What are the CNT protocols for working in public health clinics?

1. Wash hands before/after work shift with soap and water.
2. Wash with soap/water or alcohol-based germicidal rub prior to puncturing
3. Wash with soap/water between trtmnts or as often as possible.
You can use alcohol based hand rub, antiseptic towelette, or germicidal hand scrub if all you’ve touched are the needles, sterile pkgng, and materials for treatment.
4. Wash hand immediately with soap/water if there is blood contact or a break in the clean field between or during treatments.
5. Wear gloves for biohazard spills.

What kind of needles are recommended in public health settings?

Disposable.

What are the rules for removing needles in public health settings?

1. Carry the sharps container so you can dispose of them immediately
2. count the needles used
3. Check chairs/surrounding areas for fallen needles before/during/after each session.
4. instruct clients not to handle needles if they fall out or after you remove them.
5. Check for bleeding

Name 4 acceptable procedures for sterilizing needles.

1. Autoclave
2. Dry heat
3. Chemical sporicides sterilant
4. Ethylene oxide

Name 3 things that *don't* sterilize!

1. Alcohol
2. Pressure cookers
3. Boiling water

Give degrees, time, and pound of pressure necessary for sterilization in an autoclave.

- ◆ Time: 30 minutes
- ◆ Degrees: 250 F
- ◆ Pounds pressure: 15

What is the critical step that makes autoclaving effective?

The sudden drop of pressure at the end. Breaks down cell walls of resistant spores

Is it acceptable to submerge equipment in water during autoclaving?

No.

Give time and degrees for dry heat sterilization.

- ◆ Time: 2 hours
- ◆ Degrees: 338 F

Give the 3 classifications of disinfectants per the CDCP

- ◆ High level disinfectants
- ◆ Intermediate disinfectants
- ◆ Low level disinfectants

Give the 4 classifications of disinfectants per the EPA

- ◆ Sporicides
- ◆ General disinfectants
- ◆ Hospital disinfectants
- ◆ Sanitizers

Name 3 types of disinfectant solutions used in clinics

1. Dilutions of sodium hypochlorite
2. Lysol (intermediate to low level)
3. 70% alcohol (intermediate level)

What should the labels on disinfectants contain?

1. What the solution is
2. What the concentration is
3. What date it was mixed.

There are 3 steps to the double disinfectant method. What are they in general?

1. Primary disinfection.
Chemical disinfection, soaked, not cleaned.
2. Cleaning and inspection
3. Final sterilization
Dry heat or Autoclave

Describe what you do in the primary disinfection stage of the Double Disinfectant Method.

Soak needles and contaminated equipment in a chemical disinfectant without cleaning them. (Not autoclaving yet)

Describe what you do in the cleaning/inspection step in the Double Disinfectant method.

1. Wear gloves.
2. Soak instruments in water to loosen any particles, wipe and rinse thoroughly.
3. Inspect the needle for defects (cotton ball to check for burrs, etc.). Discard any defective ones.
4. Store and package needles for sterilization and storage.

Describe the final step in the Double Disinfectant method.

Autoclave or Dryheat the needles and equipment.

What are the 3 criteria for a successful autoclaving?

1. Must be packaged so that hot steam/air can reach all surfaces of the needles and other instruments.
2. Must be protected from contamination after sterilization.
3. Single needles must be able to be removed without having to touch other needles in the packaging.

How should needles be placed in trays in order to get good sterilization?

Place them obliquely in trays poked into gauze or cotton so that they can be removed without touching another needle.

What about lids on trays during sterilization?

1. Place them so steam or heat can get to all surfaces—don't seal them.
2. Seal the trays once the sterilized material is dry then remove them from the autoclaver.

Should you sterilize needles on the bottom of the tray?

Hell no!

Briefly go over the 5 steps in the double sterilization method.

1. Non-disposables into a chemical disinfectant right after use.
2. Remove from disinfectant (gloves/tweezers) and into water to soak off loose particles, then wipe and rinse.
3. Check needles for defects/damage and dispose if they are shot.
4. Prep a tray with a bed of gauze/cotton and stick needles in obliquely.
5. Autoclave

What is the safest packaging of reusable needles?

Single treatment packaging. (one sterilized package per patient)

What is autoclave tape and what do you do with it?

Indicator tape that goes on the outside of a needle tray which indicates whether the autoclave got up to the proper temp/time/pressure.

What goes on the label of sterilized equipment?

Date of sterilization and load number.

What is the best way to insure that equipment has indeed been sterilized?

Biological indicators

Why not just use indicator strips or glass enclosed melting pellets to insure sterilization?

Those only tell you that temp/pressure/time has been reached. Don't really tell you they've been sterilized. Does indicate what's gone thru the sterilizer, though.

If you use glass or steel tray lids, what do you do about the lids?

Vent them.

4 thing needed to insure proper informed consent.

1. Must be signed
2. Show what procedure consented to
3. Show pt understands
 - a. Nature of procedure
 - b. Alternatives
 - c. Risks involved
 - d. Probable consequences
4. Date of signing.

What are SOAP notes?

- ◆ S: Subjective (pt's accounting)
- ◆ O: Objective (doc's observations)
- ◆ A: Assessment (dx/differentiations)
- ◆ P: Plan of treatment

2 components of accurate patient records:

1. SOAP notes
2. Records of daily appt schedules.

While you cannot discuss patient records, you must report some things. What are they?

1. known or suspected communicable diseases
2. child abuse
3. elderly abuse

Can you discuss and 18 year old child's medical conditions/records with their parents?

No! But you can discuss 17 y.o. child's med with parents.

What are the 4 universal precautions?

1. Treat all blood and body fluids as if contaminated, handle all pts as if infectious
2. Wash hands
3. Use PPE
4. Use standard sterilization and disinfection as well as infectious waste disposal procedures.

6 rules to follow in the event of exposure per the OSHA BloodBorne Pathogen and exposure ctrl plan

1. Contact: wash hands/affected area for at least 10 seconds with soap/water.
2. If blood/fluid in eye or mucous membrane, flush with running water 15 minutes
3. Report exposure to super as soon as possible
4. Exposure report form
5. Med eval/follow up after exposure
6. Recordkeeping: HBV exposure status, post exposure evaluation, follow up results.

When should you decontaminate equipment, stuff that comes into contact with blood or other infectious materials?

As soon as possible.

What are 2 methods that are acceptable for decontamination after exposure for surfaces/tools/equipment?

1. Lysol or other EPA-registered tuberculocidal disinfectant.
2. 5.25% sodium hypochlorite diluted between 1:10 and 1:100.

What's the acceptable method for decontamination of a blood spill?

1. Cover it with papertowels or rags
2. Gently pour 10% bleach solution on it
3. Leave for at least 10 minutes

How long should you leave disinfectant in place when decontaminating equipment or other objects before continuing to clean?

10 minutes.

What is the risk of infection for HBV @ needle stick?

6-30%

What is the risk of infection for HIV due to needle stick?

0.5%

How long do you have to maintain confidential medical employee records?

Length of employment plus 30 years.

How do you stop a vein puncture from bleeding if you accidentally needle one? How about an artery?

Vein: pressure for 30 seconds-1 minute
 Artery: pressure for up to 5 minutes
 Don't use alcohol!

What are the cautions about electrical stimulation type of acupuncture?

- ◆ Don't use for elec implants/pacemaker patients
- ◆ Use cautiously on seizure disorder pts

- ◆ Don't span the heart!
- ◆ Stim shd never = pain
- ◆ Use stainless steel and fairly thick needles

What 3 specific types of patients must you be extra cautious with in doing moxa

1. Neural injury
2. Diabetics
3. Patients with paralysis

What is the special precaution on bleeding techniques?

Use double layer of gloves!

What 3 things can cause pain or trauma upon needle insertion and what is the fix?

1. Inserting too slow
use better insertion technique
2. Striking artery, periosteum, tendon, nerve
lift, change angle, reinsert
3. Needle intertwined in fibrous tissue
gently rotate needle back and forth.

What are the symptoms of fainting/gonna faint?

Dizziness and vertigo, cold sweat, pallor, feeling of pressure in chest, nausea.

In severe cases: cold extrem's, weak pulse, loss of consc, hypotension, shock.

How do you treat fainting such as this?

- ◆ Remove needles
- ◆ Lay pt flat, feet elevated,
- ◆ Offer warm drink
- ◆ Acu at GV 26, P 6, LI 4, ST 36
- ◆ Call for emergency medical

What can cause fainting?

Nervous tension
Fatigue, hunger, extreme weakness
Overly forceful manipulation

How could you possibly prevent fainting?

Treat weak, nervous, tired or fasting patients lying down.
Insert and manip gently
Observe patient closely

What is a stuck needle?

Can't move, remove, lift, thrust.

How do you unstick a stuck needle?

- ◆ Relax the pt
- ◆ Massage or tap around skin
- ◆ Give another nearby puncture
- ◆ Turn the needle in opp direction—might be intertwined.

What can cause a stuck needle?

Muscle spasm
Overly wide amplitude of rotation

What can cause a broken needle?

Poor quality
Pt chg's position
Strong muscle spasm
Excessive force in manip

What do you do if a needle breaks in the skin?

1. Tell pt not to move
2. Remove with forceps if exposed
3. Go for medical help if breaks below the skin.

Why should you never insert a needle up to the handle?

Because that's where needles usually break if they are going to.

What is pneumothorax and how could an acupuncturist cause it?

Needle too deep in chest/back/supraclavicular fossa or incorrect direction

What are the symptoms of pneumothorax?

1. Chest pain and cough
2. Dyspnea, pallor, cyanosis, coma, death.

If it happens, what do you do?

Immediately and carefully withdraw the needle.
Encourage pts to lie calmly
To the hospital or call 9-1-1

What are the symptoms of liver/spleen injury due to needling?

1. ab pain
2. rigid ab
3. rebound pain on pressure

What are the symptoms of kidney injury due to needling?

Pain in lumbar
Tenderness/pain on percussion
Bloody urine
Coma

What would you do in the event of liver, spleen or kidney injury?

Hospital or 911.

What are the symptoms of brain/spinal cord injury and what do you do in this instance?

Convulsions
Paralysis
Coma

Call 911

How long before HBV vaccine loses potency and must be renewed?

How often should a health care worker be tested?