



ASAP

Australian Society of Acupuncture Physiotherapists

GUIDELINES for SAFE ACUPUNCTURE and DRY NEEDLING PRACTICE

April 2013

CONTENTS

Forward	5
Section One	
Introduction	7
Training Standards	8
Principles of Safe Practice	9
Management of High Risk Situations	11
Additional Guidelines for Ancillary Treatments	15
Management of Adverse Events	17
Section Two	
Infection Control	19
Bibliography	25

FORWARD

This document is designed to be used as a guide to safe practice by physiotherapists and other allied health practitioners practicing acupuncture in Australia. Acupuncture practice in this document covers various styles of needling modalities including Traditional or East Asian Medicine based Acupuncture, Western Acupuncture and Dry Needling. Underpinning these guidelines is a risk management framework.

These guidelines are based on the [Australian Commission on Safety and Quality of Health Care](#) Australian Guidelines for the prevention and control of infection in healthcare. NHMRC (2010). These Australian Guidelines are not prescriptive, rather take a risk management approach. These guidelines, guide the therapist to identify infection risks and to take adequate precautions for the identified risk.

By no means are ASAP guidelines intended to replace the Australian Guidelines, rather they are put forward as a compliment, and to direct therapists to aspects of the Australian Guidelines that are particularly pertinent to acupuncture. Section one of the guidelines refers to issues specific to acupuncture. Section two of the guidelines refers to the general guidelines of infection control.

In the development of these guidelines, a review of other various National, State, Territory and International guidelines was conducted. The key documents consulted are outlined below with links so that the user can consult documents directly.

1. The minimum standards set by the [International Acupuncture Association of Physical Therapists \(IAAPT\)](#).
2. Australian Commission on Safety and Quality of Health Care - [Clinical Educators Guide for the Prevention and Control of Infection in Health Care](#). NHMRC (2010)
3. [National Health and Medical Research Council's Australian Immunisation Handbook \(2013\)](#)
4. [AHPRA Chinese Medicine Registration Board Infection Control Guidelines](#)
5. [NSW Guidelines](#)
6. [QLD Guidelines](#)
7. [NT Guidelines](#)
8. [ACT Guidelines](#)
9. [SA Guidelines](#)
10. [TAS Guidelines](#)
11. [WA Guidelines](#)

Paula Raymond-Yacoub and Leigh McCutcheon updated and reviewed this document in April 2013. The first version of this document (2007) was produced by an ASAP working party of the following physiotherapists.

Leigh McCutcheon

BAppSc (Physio) Grad Cert (Orth Manip Ther) Post Grad Dip (Acupuncture) Master Musculoskeletal (Hons)
Member APA ADNG, ASAP, MPA, SPA, NZSP, PAANZ.

Paula Raymond-Yacoub

B Pty., Acup Cert (APA) M Clin Prac
Member APA ADNG, ASAP, Chair of the ADNG, founding chair of ASAP

Andrew Hutton

BAppSc (Physio) Titled Sports Physiotherapist
Member APA ADNG, ASAP, SPA, MPA

Peter Selvaratnam

BAppSc (Physio) Grad Dip (Manip Ther) Post Grad Dip (Acupuncture) Ph.D (Anatomy)
Member APA ADNG, MPA, SPA, ANZAOP, Asoc.Prof.(clinical)Univ.Melb.

Libbie Nelson

Dip (Physio) Acup Cert (APA) Dip (Herbal Med & Homeopath)
Member APA ADNG, ASAP, SPA, GG

Doug Cary

BAppSc (Physio) Post Grad Dip (Manip Ther) Grad Dip (Clinic Acupuncture)
Member APA ADNG, MPA, ASAP

Virginia Ruscoe

BAppSc (Physio) Acup Cert (APA)
Member APA ADNG, ASAP, SPA

APA – Australian Physiotherapy Association

ASAP – Australian Society of Acupuncture Physiotherapists

SPA – Sports Physiotherapy Australia

PAANZ – Physiotherapy Acupuncture Association of New Zealand

MPA – Musculoskeletal Physiotherapy Australia

NZSP – New Zealand Society of Physiotherapists

GG – Gerontology Group

ANZAOP – Australia/New Zealand Academy of Orofacial Pain

ADNG – APA Acupuncture and Dry Needling Group

SECTION ONE

INTRODUCTION

Physiotherapists and other allied health practitioners may practice acupuncture under any of the following paradigms; Traditional Acupuncture¹, Western Acupuncture² or Dry Needling³. Utilisation of any style of needling must be within the individual's scope of practice and should include a diagnosis based on clinical reasoning and be part of an overall management approach. In these guidelines Acupuncture and Dry Needling are defined as follows:

Traditional Acupuncture: Utilisation of meridian or extra points based on an East Asian Medicine (EAM) approach which includes diagnosis and clinical reasoning using various EAM assessment methods and theoretical constructs.

Western Acupuncture: Western acupuncture utilises meridian points but applies it to western reasoning with particular consideration to neurophysiology and anatomy. It does not utilise any EAM assessment methods or paradigms.

Dry Needling: Needling to altered or dysfunctional tissue, to improve or restore function. This may include (but is not limited to) needling of myofascial trigger points, periosteum and soft tissues.

TRAINING STANDARDS

Any attempt to establish training standards is to ensure public safety. Although acupuncture and DN are very safe if practiced sensibly, there have been documented fatalities (Ernst 2010) as well as other serious (non fatal) adverse effects such as pneumothorax or local or systemic infections. It is incumbent on therapist to ensure the training they have received meets with these or comparable standards.

Within Physiotherapy, the ASAP suggests these recommendations regarding introductory training.

- The training standard should depend on the paradigm being employed.
- The training standards should be in line with international standards.
- Training should be underpinned by a competency based framework.
- These standards should form the basis from which indemnity insurers provide cover, which is the case in Australia.
- Traditional EAM Acupuncture Training Standard

The current APA Integrative Acupuncture Level 1 course is an 80-hour program that includes self-directed components and face-to-face teaching (48 hours). The APA has run introductory Traditional Acupuncture courses since 1979. Courses that are comparable or of longer duration would meet this required standard.

- Dry Needling (DN) or Western Acupuncture Training Standard

A two-day course is considered adequate as a basic introduction. A 16-hour minimum training for dry needling or western acupuncture is based on the fact that the clinical reasoning underpinning dry needling and western acupuncture does not differ from the anatomical and neurophysiology knowledge that allied health therapists already possess. Such courses must have at least 12 hours of practical face-to-face training as this is considered a minimum for sufficient training, in light of the inherent risk associated with skin penetration, especially if needling in the neck and thorax regions is taught at an introductory level.

Following the minimum training requirements, therapists are recommended to complete 30 hours of continuing professional development (CPD) in acupuncture or dry needling every three years to remain competent in this field of practice. It is recommended that a portion of CPD should be practical training.

PRINCIPLES OF SAFE PRACTICE

- The use of disposable needles is essential. It would be difficult to defend the use of reusable or re-sterilised needles in a case of acupuncture induced infection. All the major infections reported in the acupuncture literature, including HIV, but more frequently, Hepatitis B, have resulted from errors in sterilisation of reusable needles.
- Therapists should confine their use of acupuncture and DN to treatment of conditions within the scope of professional practice for which they have training and experience.
- Further training is essential, if they wish to extend the scope of acupuncture and DN. This is particularly pertinent for any needling in the trunk, thorax or head/ cervical regions.
- Therapists should only implement needle insertion techniques after attending a two day introductory training course, and the recommendation is that this comprise a minimum of 12 practical contact hours if on line or self directed learning modules are to be used.
- Therapists must comply with current National , State or Territory infection control guidelines.
- Therapists should keep clearly documented records describing the acupuncture procedure. Warnings given and informed consent should be noted. For consent of a child less than 16 years of age a parents or guardians consent should be gained. It may be pertinent to document both the parents and the child's consent, especially if the child is in the 14-16 year age group. Parents should be present for at least the first treatment.
- Warnings and consent should include contraindications and precautions and possible adverse outcomes. In some cases where there is a higher risk, it may be pertinent to gain written consent.
- Therapists should comply with the management of adverse event guidelines as outlined in this guide.
- Therapists should comply with the hygiene requirements as outlined in the *Australian Guidelines (2010)*. Therapists should be aware of any further hygiene requirements of employers (e.g. hospital department guidelines).
- Therapists should comply with the waste disposal guidelines for needles or bodily fluids as outlined in the *Australian Guidelines (2010)*. Therapists should be aware of additional requirements for waste disposal of needles or bodily fluids as set by local governing bodies.
- Therapists should recognize and comply with the additional guidelines for ancillary modalities such as: moxibustion, cupping and spooning, auricular needles, press needles, beads and plum blossom needles.
- The therapist must remain within hearing distance so that they are immediately accessible to the patient and can monitor treatment and make any appropriate checks of the patient.
- Therapists need to manage the risk of "needle stick" injury. Sharps bins should be close at hand, and needles disposed of immediately.
- The patient should be provided with an explanation of the proposed treatment and what it entails. This explanation may include:
 - The procedure of the needle insertion into the skin
 - That sterile, single use, disposable needles are used
 - A brief explanation of how the type of acupuncture that is being implemented works

- The use of additional stimulation of the needle, such as manual stimulation, electrical stimulation or *moxa*
- The possibility of transient symptoms during and/or after the treatment, such as fatigue, light headedness or temporary aggravation of the symptoms
- Any advice following the treatment that may be pertinent for the individual patient, such as care with driving long distances after any needling treatment
- The expected post needling soreness associated trigger point DN or pecking of various pathophysiological conditions.

MANAGEMENT OF HIGH RISK SITUATIONS

1. PROHIBITED AREAS

There are a number of so called prohibited areas for using acupuncture techniques include nipples, the umbilicus and the external genitalia. It is questionable if these sites pose a risk to patients but are culturally inappropriate. The scalp areas of infants (before the fontanelles have closed) must not be needled, as this poses a major risk.

2. HIGH RISK AREAS

The following are useful points which are close to vulnerable structures and so require extra caution and specific training is required.

- GB21 (trapezius), BL 11, LU 1 and any other point in the thorax due to the relative risk of pneumothorax. Needling in this region should be shallow **and/or** away from lung tissue **and/or** over bone or cartilage.
- Superiorly the lung field extends 2-3 cm above clavicular line, hence GB 21 being most frequent point associated with pneumothorax – (sufficient minimum training is required to needle this point).
- Anterioro-laterally the lung extends to rib 6 mid clavicular line and to rib 8 mid axillary line.
- The pleura extends two ribs below i.e. the 8th rib at the mid-clavicular line and down to rib 10-12 laterally (mid-axillary line).
- Posteriorly the lung extends to the 10th rib, and the pleura down to 12th rib, at the lateral border of the erector spinae.
- Eye orbit points including BL 1, ST 1 and Ex Pt. (*qiu hou*) are generally considered to be contraindicated for therapists unless they are applying a non insertion technique.
- Neck points including CV 22 (anterior neck), LI 18 (lateral neck over the major vessels), SI 17 (over the baroreceptors), ST 9 (over the carotid) GV 15 (over the spinal cord), and GV 16 (over the brain stem).
- ST 21 which lies over the gall bladder on the right should be needled superficially and/or obliquely.
- CV 17 (over the sternum) and SI 11 (over the infrascapular fossa) should be needled superficially and/or obliquely due to congenital foramen that are present in some people.
- *Ah Shi* (tender points) points close to vulnerable structures
- Avoid vulnerable pathological sites including varicose veins, acutely inflamed areas, areas of unhealthy tissue or infected tissue.
- Avoid limbs affected by lymphoedema. Japanese acupuncture, using non-insertion techniques may be utilized in this case.
- Avoid needling directly into breast tissue. Japanese acupuncture, using non-insertion techniques may be utilized in this case.
- Care when needling between the spinous processes of vertebrae or over the nerve roots (Governing Vessel, HTJ or the inner Bladder channel). The distance from the skin to the spinal cord or the roots of the spinal nerves varies from 25 to 45 mm in different individuals. The spinal cord terminates around the L1 to L2 level of the vertebral column. To avoid infection or creating perineural cysts do not puncture deeply in this region.
- All abdominal organs, including the kidney, liver, spleen, intestines and urinary bladder are potentially at risk, when needling directly over the organs. The risk is greater with anatomical variance or enlarged organs.

3. PREGNANCY

- Acupuncture should be used with caution on pregnant patients as there is a risk of miscarriage particularly in the first trimester.
- Acupuncture points that should be avoided include LI 4, SP 6, BL 60, BL 67 and LV 3, points over the abdomen, ear points for the endocrine and the genitor-urinary system as well as scalp points targeting the genital area, and the foot motor sensory areas. GB 21 may be used with caution but note, it is contraindicated in traditional texts.
- The upper lumbar spine and sacral areas should be needled with caution.
- Strong electro-acupuncture and over stimulation of points should be avoided during pregnancy.
- Please note that certain points are indicated at the latter stages of pregnancy to turn the baby (BL 67) or to induce labour when past the due date and hormonal induction is being recommended (LI 4, LV 3, SP 6).
- As one in four to five pregnancies naturally abort especially in the first trimester. The risk of acupuncture should be fully outlined and it may be advisable to seek written as well as verbal consent prior to treatment as there is a risk that a miscarriage may be attributed to treatment.
- Recent research indicates acupuncture has been associated with minor adverse complaints rather than severe adverse outcomes in pregnant women when needled in the second and third trimesters.

4. DIABETES

- As diabetic patients may have poor peripheral circulation the risk needs to be assessed.

5. PACEMAKERS

- Patients with pacemakers should not receive electro-acupuncture.

6. CONFUSED PATIENTS

- The patient must be able to consent to the proposed treatment.
- If the patient appears disoriented or confused then acupuncture treatment is not advisable.

7. CHILDREN

- Parental consent must be gained when treating children under the age of 16.
- Consider gaining consent from both the parent and the child, especially if the child is in the 14-16 year age group.
- Parents must be present during the first treatment, until the child is settled.

8. BLEEDING DISORDERS

- Naturally occurring hemorrhagic diseases (e.g. Haemophilia, Von Willebrands), require lighter stimulation and smaller gauge needles.
- The extra risk of needling over a major artery must be assessed.

9. ANTICOAGULANTS

- Patients on high levels of blood thinning medications such as Plavix or Warfrin pose risks. Finer gauge needles are recommended and it is advisable to apply pressure to the site of insertion after withdrawing the needle.
- Avoid needling into joints to minimise the risk of haemarthrosis.

10. CANCER

- Cancer patients may be on immunosuppressants, therefore present a greater risk of infection.

11. ACUTE IMMUNE DISORDERS

- Patients with acute immunological disorders (e.g. acute states of rheumatoid arthritis, psoriatic arthritis or systemic lupus erythema) have an increased risk of infection.

12. INCOMPETENT HEART VALVE OR VALVE REPLACEMENTS

- Patients with an incompetent heart valve or valve replacement have an increased risk of infection. It may be pertinent to seek advice, consent or antibiotic prescription) from the patient's general practitioner or cardiac specialist.

13. INTERNAL FIXATION OR JOINT REPLACEMENT

- Needling into an artificial joint is a **CONTRAINDICATION** due to the risk of infection. Needling around an internal fixation device poses some risk.
- is a relative contraindication.

14. ORAL CORTICOSTEROIDS

- Oral corticosteroids are a relative precaution and may pose a slight risk associated with an increased infection risk.

15. METAL ALLERGY

- Patients allergic to metals, may have a reaction to needles.

16. UNSTABLE EPILEPSY

- Patients with epilepsy, especially unstable epilepsy, should be needled with care.
- Patient positioning should be considered. A side lying position may be preferable.
- The number of needles should be limited.
- The use of strong points and stimulation needs to be moderated.

- The duration of retention should be considered.

17. FRAIL PATIENTS

- Patients with a weak constitution after prolonged chronic illness may tolerate acupuncture poorly.
- Minimal treatment (reduced number of needles, reduced treatment times, finer gauge needles and minimal stimulation of the needles) should be considered.

18. HOMEOSTATIC EFFECT WITH CERTAIN MEDICATIONS

- Due to acupuncture's effect on the autonomic system patients may have reactions that effect their current medications and an over correction of a patient's medical condition may occur.
- This is particularly pertinent for patients on blood pressure or diabetic medications.
- It is advisable for the therapist to consider this possibility and it may be prudent to discuss this with the patient.

19. TREATMENT EXTERNAL TO CLINICAL ROOMS

- Care should be taken when needling patients at an external setting (such as on a home visit or at a sporting venue) to ensure that patients are adequately positioned to prevent injury should fainting occur.
- Patient's skin should also be examined to ensure that it is clean prior to treatment.

ADDITIONAL GUIDELINES

ELECTROACUPUNCTURE (EA)

- Patients with heart pacemakers should not receive EA.
- Extra care must be taken if patients have bleeding disorders or are on anticoagulant therapy as the muscle contraction and the movement of the needle may create a significant bleed.
- It is recommended that EA is not applied across the spinal cord.
- Use a biphasic stimulator, designed for EA. Direct current (DC) must be avoided to prevent polarisation of the needles due to electrolysis. The unit used must be battery (not mains) operated.
- Use needles suitable to EA, if plastic they must be the type designed for EA.

MOXIBUSTION

- It is essential to assess heat perception sensitivity before starting.
- Caution in hirsute (hair covered) areas of the body.
- Avoid moxibustion on broken or damaged skin.
- Apply extra care with children or frail patients.
- Where possible shield the skin with a protective guard to protect against burns when applying needle head moxibustion.

CUPPING AND SPOONING/GUA SHA

- Cups, scraping spoons and other equipment which have come into contact with blood or non-intact skin are critical items should not be reprocessed. Blood exposure may occur for example when cups are applied following the use of a dermal hammer or acupuncture on the same area. These contaminated items should be treated as single use items and be disposed of.
- Considering of the relatively low cost of these items compared to the costs of implementing a documented sterilisation process which complies with Australian Standards AS/NZ 4187 and AS/NZS 4815. Treating these items as disposable cost effectively reduces a significant potential source of infection.
- Where a sterilisation process is in place (which complies with Australian Standards AS/NZ 4187 and AS/NZS 4815) then these items may be reprocessed (NHMRC 2010, p 80-81).
- Exception: Cups, scraping spoons and other equipment which have been in contact with intact skin only are non-critical items and can be reprocessed by cleaning and/or disinfecting according to table B1.14 [NHMRC 2010, p 81]. Any More difficult to apply in hirsute areas of the body.
- It is not unusual for bruising due to prolonged or strong cupping to occur. Blistering due to prolonged strong cupping may also occur. This risk should be explained when gaining consent. It is advisable to draw patients attention to any bruising that has occurred. Use a mirror if necessary, so they are not surprised when they get home.
- It is essential to check state of skin before starting. Do not use on broken or damaged skin or inflamed tissue.
- Use with care with children or frail patients

- Avoid the sacral area or abdomen of pregnant women.
- Avoid using cupping or spooning on patients who have bleeding disorders or are on anticoagulant therapy.
- Be aware that some brands of suction cups have an inbuilt magnet, which contacts the skin. If the suction is too strong this magnet can press too strongly against the engorged tissue and break the skin creating an infection risk.

AURICULAR THERAPY

- Extra precautions must be taken with all ear acupuncture because the cartilage has a very poor blood supply. Therefore, if this becomes infected, it is difficult for the body to mount an immune response to the invading bacteria. Do not use press (semi-permanent) needles if there are obvious lesions on the ear or the patient has an immune deficiency disease.
- Clean the ear with an alcohol swab or soap and water to remove dead cells/wax.
- In the case of press needles or beads sterilise the skin with 2% solution of iodine in 70% alcohol.
- In the case of press needles/beads, after applying a sterile disposable press needle or bead, apply 2% iodine in flexible collodion solution, or 2% iodine and cover with "Op-Site". This seals the press needle/bead and reduces the risk of infection.
- These needles/beads may remain in place for 7-10 days. In humid conditions needles or beads should be left in-situ for much shorter periods.
- Press needles/beads may remain in place for 7-10 days. In humid conditions press needles or beads should be left in-situ for much shorter periods.
- At the time of removing the press needles check the tissue and assess whether an antiseptic ointment or antibiotic ointment is required to be applied to the needle site.

DERMAL HAMMER

- Only single use disposable hammers are to be utilised and these should never be reprocessed. However where a sterilisation process is in place which complies with Australian Standards as outlined above, then these items could be reprocessed.

MANAGEMENT OF ADVERSE EVENTS

PAIN DURING TREATMENT

If excessive pain persists while the needle is inserted it should be removed if it is self pain persists when the needle is inserted which is not consistent with de Qi or trigger point referred pain (eg sharp shooting pain or parasthesia) the needle should be removed. If pain persists following a treatment, the patient can be advised to apply heat or ice.

HAEMATOMA

Care should be taken to avoid injuring blood vessels, however if bleeding does occur, apply pressure to the area with a cotton swab after the needle has been withdrawn. Ice can be used locally to minimise the bruising. If there is a risk of contacting blood then glove/s should be worn.

FAINTING

This may be caused by nervous tension, hunger, fatigue, incorrect positioning, excessive stimulation of the needles or if the patient is autonomically labile. To avoid fainting explain the acupuncture procedure before treatment, treating the patient in a lying position may be preferable, don't insert too many needles and use minimal stimulation on the first treatment. If fainting occurs stop needling and remove all needles, make sure the patient is lying down and consider raising their legs, offer water, warm tea or something sweet to eat and reassure the patient. Symptoms should abate after resting.

STUCK NEEDLE

A stuck needle may occur due to spasm of the local muscle after insertion of the needle, twisting the needle with too much amplitude or in only one direction causing the muscle fibres to bind, or if the patient alters their position whilst the needles are in-situ. To avoid, position the patient in a relaxed manner, avoid excessive twisting of the needle and avoid needling tendinous muscle tissue. If the needle is stuck due to over rotation, then rotate the needle in the opposite direction and remove. If it is stuck due to muscle tension, leave the needle in for a short time, relax the tissue around the needle with massage, ice massage or by inserting 1-2 needles around the stuck needle, then remove the needle.

BENT NEEDLE

A needle may bend if it strikes hard tissue, there is a sudden change in the patient's posture, or strong contraction of the muscle occurs during trigger point needling. To prevent this, insert the needle carefully with the patient in a comfortable position. If the needle does bend instruct the patient not to move, relax the local muscle and remove the needle slowly following the course of the line of the bend.

BROKEN NEEDLE

This may occur due to poor quality of the needle, strong muscle spasm, sudden movements by the patient when the needle is in place or by withdrawing a bent needle. The likelihood of a broken needle is very rare with the use of single use sterile needles as there is no metal fatigue from repeated use and autoclaving. The patient should be advised to remain calm to avoid the needle from going deeper. If the broken needle is exposed remove the broken section with tweezers, if it is not exposed press the tissue around the insertion site until the broken section is exposed and remove with tweezers. If the needle can't be removed in the clinic, medical attention must be sought so that the needle can be removed surgically.

INFECTION

The skin in the region to be needled should be inspected and if infection is suspected needling should be deferred and medical advice sought. Care should be taken when needling very thin or fragile skin.

EXCESSIVE DROWSINESS

A small percentage of patients may feel excessively relaxed and sleepy after acupuncture treatment. They should be advised not to drive until they have recovered. For patients that this occurs with, it is recommended that needle retention time is reduced and to apply milder stimulation.

PNEUMOTHORAX

When needling around the thoracic region patients should be warned of the rare possibility of a pneumothorax. Care should be taken when needling GB 21 (upper trapezius) and any other points over the thoracic region which could inadvertently create a pneumothorax. Where possible angle the needle away from the underlying lungs and/or needle over bone or cartilaginous tissue. Practitioners must have attended adequate training programs to needle in the thoracic region. The symptoms and signs of a pneumothorax may include shortness of breath on exertion, chest pain, dry cough, and decreased breath sounds on auscultation. Such symptoms will commonly occur when the patient is walking away from the clinic. These symptoms may not occur until several hours after the treatment and patients need to be cautioned of this especially if they are going to be exposed to marked alterations in altitude such as flying or scuba diving. If a pneumothorax is suspected then the patient must be sent urgently for an x-ray and medical management.

NEEDLE STICK INJURY

Wash well around the site of penetration, encourage bleeding and have blood tests for Hepatitis B and C and HIV/AIDS. The patient may also be requested to have the same blood analysis performed. If the patient is HIV positive therapist should urgently seek medical advice. Practitioners should consider vaccinations for Hepatitis B. Only therapists trained in acupuncture or dry needling techniques are permitted to remove needles from a patient.

SECTION TWO

METHODS OF REDUCING THE SPREAD OF INFECTION

This section of the guidelines is based on the *Australian Guidelines* which were written from a care delivery perspective and are underpinned by a risk management framework. Understanding the modes of transmission of infectious organisms and knowing how and when to apply the basic principles of infection prevention and control, such as standard and transmission based precautions, is critical to the success of an infection control.

There are two levels of precautions and for most private practice or out patient settings the standard precautions are what are universally applied. Where there is the presence of known infectious agents, then transmission based precautions need to be applied as required.

DEFINITION OF STANDARD PRECAUTIONS

Standard precautions refer to those work practices that are applied to everyone, regardless of their perceived or confirmed infectious status and ensure a basic level of infection prevention and control. Implementing standard precautions as a first-line approach to infection prevention and control in the healthcare environment minimises the risk of transmission of infectious agents from person to person, even in high-risk situations.

Standard precautions include:

- Hand hygiene, before and after every episode of patient contact as outlined in the 5 Moments for Hand Hygiene (see below)
- The use of personal protective equipment (PPE), in the acupuncture context may involve the use of gloves;
- The safe use and disposal of sharps;
- Routine environmental cleaning;
- Reprocessing of reusable medical equipment and instruments;
- Respiratory hygiene and cough etiquette;
- Aseptic non-touch technique;
- Waste management; and
- Appropriate handling of linen.

DEFINITION OF TRANSMISSION BASED PRECAUTIONS

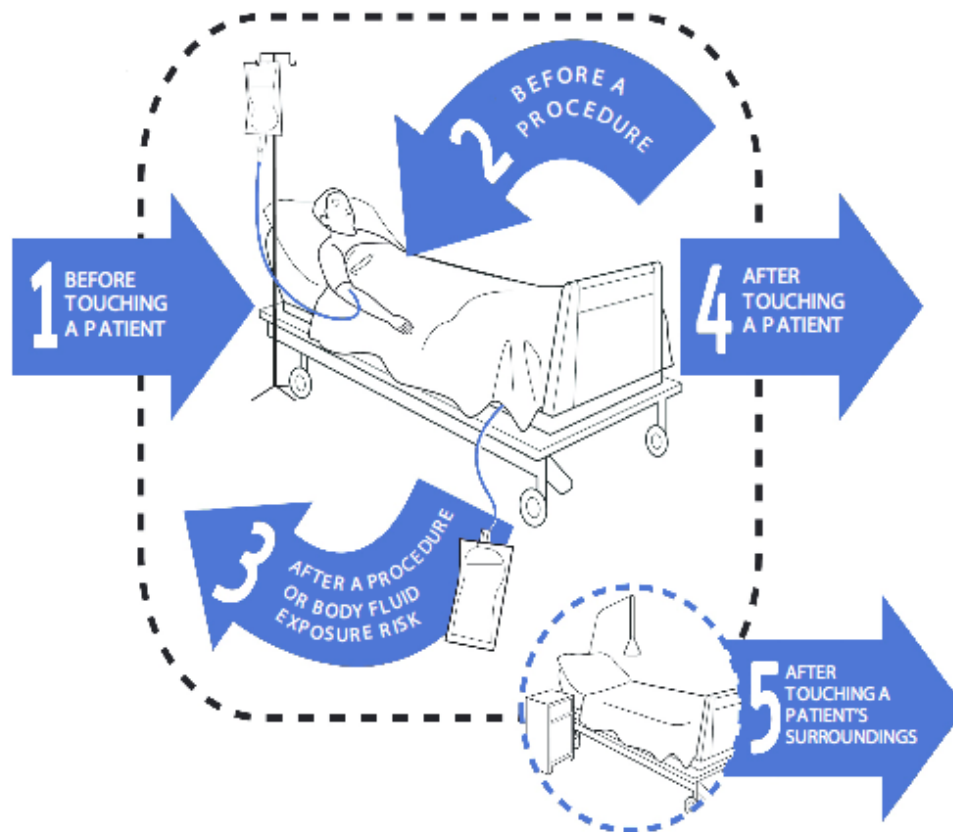
The first line of prevention of infection is the use of standard precautions.

Transmission-based precautions are additional work practices for specific situations where standard precautions are not sufficient to interrupt transmission. These precautions are tailored to the particular infectious agent and its mode of transmission.

Transmission based precautions may include on or any combination of the following:

- Continued implementation of standard precautions;
- Appropriate use of PPE (including gloves, apron or gowns, surgical masks or P2 respirators, and protective eyewear);
- Patient-dedicated equipment;
- Allocation of single rooms or cohorting of patients;
- Appropriate air handling requirements;
- Enhanced cleaning and disinfecting of the patient environment; and
- Restricted transfer of patients within and between facilities

5 Moments for HAND HYGIENE



1 BEFORE TOUCHING A PATIENT	<p>WHEN: Clean your hands before touching a patient and their immediate surroundings</p> <p>WHY: To protect the patient against acquiring harmful germs from the hands of the HCW</p>
2 BEFORE A PROCEDURE	<p>WHEN: Clean your hands immediately before a procedure</p> <p>WHY: To protect the patient from harmful germs (including their own) from entering their body during a procedure.</p>
3 AFTER A PROCEDURE OR BODY FLUID EXPOSURE RISK	<p>WHEN: Clean your hands immediately after a procedure or body fluid exposure risk</p> <p>WHY: To protect the HCW and the healthcare surroundings from harmful patient germs</p>
4 AFTER TOUCHING A PATIENT	<p>WHEN: Clean your hands after touching a patient and their immediate surroundings</p> <p>WHY: To protect the HCW and the health care surroundings from harmful patient germs</p>
5 AFTER TOUCHING A PATIENT'S SURROUNDINGS	<p>WHEN: Clean your hands after touching any objects in a patient's immediate surroundings when the patient has not been touched</p> <p>WHY: To protect the HCW and the health care surroundings from harmful patient germs</p>

Adapted from



HAND HYGIENE

This section of the guidelines has been based on [Hand Hygiene Australia's](#) document.

Therapists must ensure that hands and nails are clean prior to giving treatment.

- Hands should be washed with soap before needling a patient for at least 15 seconds particularly if there is contamination with grime or body fluids present.
- Alternatively an appropriate Anti Bacterial Hand Rub (ABHR) can be used.
- When selecting an ABHR product, HHA recommends a product that meets the EN1500 testing standard for bactericidal effect, the Product has Therapeutic Goods Administration (TGA) approval as a hand hygiene product.
- When using ABHR the manufacturer's guidelines should be followed.
- Hand moisturisers should be at regular intervals to help maintain the therapist's skin condition.
- Cuts, abrasions or lesions on the skin of the therapist are a possible source of pathogens and should be covered by water resistant occlusive dressing or disposable gloves should be worn.
- According to the *Australian Guidelines* the use of gloves is not mandatory. However when there is an anticipated risk of contacting blood or other body fluids the gloves must be worn. Normally there is minimal risk of this in acupuncture. The risk is slightly higher when needles are removed. Therapists may consider wearing a glove on the hand holding the cotton ball, when removing needles.
- Some Australian states or territories laws concerning skin penetration may require the therapists to glove when needling.
- Hands should also be cleaned after needling a patient even if gloves are worn.
- The skin in area to be needled must also be clean. If the patients does not present with clean skin, the area should be cleaned with soap and water, or by using an isopropyl alcohol skin wipe.
- Long finger nails present a risk, so nails must be kept short.

SKIN PREPARATION

No skin preparation is usually required unless needling into an area that is particularly susceptible to infection, such as a joint or bursa.

If your risk assessment dictates swabbing use an alcohol wipe and allow to dry for at least 1-2 minutes or use Betadine (iodine) to pre-swab the area. A sterilising solution such as 2% iodine in 70% alcohol should be used and left on the skin to dry for a minimum of two minutes. For those allergic to iodine, chlorhexadine in alcohol is suitable.

If the patient's skin does not appear clean (e.g. if they have been working outdoors or walking on the beach) you may request the patient to wash their skin prior to administering the acupuncture treatment.

Skin sterilisation is recommended for is recommended in the following:

- Immuno-compromised patients include those with malignancies, autoimmune problems such as S.L.E, AIDS or R.A. and those on immune suppressive drugs e.g. organ transplant recipients. These groups of

people can get an infection from a much smaller number of infectious agents than those with an intact immune system. Disinfection may not remove enough organisms to prevent infection, hence their skin needs to be sterilised

- When needling into a joint space (e.g. shoulder, knee) or bursa.
- For those allergic to iodine, chlorhexadine in alcohol is suitable.

The background to this policy is that in a normal healthy person a certain amount of infectious agents (bacteria, viruses) have to be introduced to the host's system before the body's defenses are overwhelmed and an infection takes place. To reduce the number of bacteria or viruses below this infective agent is to **disinfect**. To completely remove all forms of life from the skin is to **sterilise**.

WORK AREAS

- The treatment area should be clean, private if possible and have washing facilities near at hand.
- Wet surfaces should be disinfected regularly.
- Linen contaminated with blood or other body fluids should be treated with Hypochlorite solution (Bleach) before laundering.

WASTE DISPOSAL

- Sharps containers must comply with AS4031 or AS/NZ 4261 must be located in the immediate proximity of each client receiving acupuncture.
- Sharps containers must be kept out of reach of children.
- Sharps containers must not be filled beyond three-quarters full [NHMRC 2010 p 63-64]
- Bins must be disposed of by a waste disposal contractor according to respective State, Territory or local government regulations.

MANAGEMENT OF BLOOD AND BODILY FLUIDS SPILLS

Large blood and bodily fluid spills are unlikely in acupuncture practice however if a spill occurs from some cause then follow these guidelines.

- Wear personal protective equipment (PPE). Heavy duty utility gloves are advised.
- Absorb the spill with dry disposable paper towels. Since most disinfectants are less active, or even ineffective, in the presence of high concentrations of protein as are found in blood or serum, the bulk of the spilled liquid should be absorbed prior to disinfection.
- Confine waste in a disposable waterproof bag.
- Clean the spill site with detergent and water, rinse and dry.
- Disinfect the spill site using a chlorine-generating disinfectant if bare skin will contact the spill site or if it a

difficult to clean surface in the clinical area.

- Surfaces that cannot be cleaned (in carpet) adequately may need replacement.
- Disinfectants should be left in contact with the surface for 10 minutes.
- Sodium hypochlorite solutions must be freshly prepared.
- Sodium hypochlorite may be irritating to skin therefore protective gloves must be worn.
- Sodium hypochlorite may corrode metal and damage other surfaces.
- Liquid household bleach usually contains 4-5% available chlorine, diluted with tap water 1:100 gives 5000 ppm approximately which will inactivate Hepatitis B in 10 minutes and HIV virus in 2 minutes.
- Flood the spill site or wipe down the spill site with disposable towels soaked in disinfectant to make the site “glistening wet”.
- Absorb the disinfectant solution with disposable materials. Alternatively, the disinfectant may be permitted to dry.
- Rinse the spill site with water to remove any noxious chemicals or odours. Dry the spill site to prevent slipping or further spills.
- Materials used to absorb spillage should be placed in impermeable waste bags and disposed of appropriately.

BIBLIOGRAPHY

- APA Acupuncture Position Statement. (2002). Clinical management: Acupuncture & other forms of skin penetration. *Australian Physiotherapy Association*.
- APC (2005). National Infection Control Guidelines for Podiatrists. *Australian Podiatry Council and Podiatrists Registration Boards*.
- Australian Immunisation Handbook 8th Edition (2003). *National Health and Medical Research Council*.
- Bang, M.S., & Lim, S.H. (2005). Paraplegia caused by spinal infection after acupuncture. *Spinal Cord*, 44(4), 258-259.
- Baldry, P.E. (2005). *Acupuncture, Trigger Points and Musculoskeletal Pain. Third Edition*. Edinburgh: Elsevier Churchill Livingstone.
- Bensoussan, A., Myers, S.P., & Carlton, A.L. (2000). Risks associated with the practice of traditional Chinese medicine: An Australian study. *Archives of family medicine*, 9, 1071-1078.
- Berthelot, P., Dietmann, J., Fascia, P., Ros, A., Mallaval, F.O., Lucht, F., pozzetto, B. & Grattard, F. (2006). Bacterial contamination of nonsterile disposable gloves before use. *American Journal of Infection Control*, 34(3), 128-130.
- Burford-Mason, A. (2003). Acupuncture and adverse effects. *Canadian Family Physician*, 49, 1588.
- Campbell A, Macglashan J. (2005). Acupuncture-induced galactorrhoea - a case report. *Acupuncture in Medicine*, 23(3),146.
- Cheng, T.O. (2000). Cardiac tamponade following acupuncture [comment]. *Chest*, 118(6),1836-1837.
- Chung, A., Bui, L., & Mills, E. (2003). Adverse effects of acupuncture: which are clinically significant? *Canadian Family Physician*, 49, 985-989.
- Cook, H.A., Cimiotti, J.P., Della-Latta, P., Saiman, L., & Larson, E.L. (2007). Antimicrobial resistance patterns of colonizing flora on nurses' hands in the neonatal intensive care unit. *American Journal of Infection Control*, 35(4), 231-236.
- Elden, H., Ostgaard, H.C., Fagevik-Olsen, M., Ladfors, L. & Hagberg, H. (2008). Treatments of pelvic girdle pain in pregnant women: adverse effects of standard treatment, acupuncture and stabilising exercises on the pregnancy, mother, delivery and the fetus/neonate. *BMC Complementary and Alternative Medicine*, 8(34), doi:10.1186/1472-6882-8-34.
- Ernst, E. (2010). Deaths after acupuncture: a systematic review. *International Journal of Risk & Safety in Medicine*, 22, 131–136.
- Ernst, G., Strzyz, H., & Hagemeister, H. (2003). Incidence of adverse effects during acupuncture therapy - a multicentre survey. *Complementary Therapies in Medicine*, 11(2), 93-97.
- Ernst, E., & White, A.R. (2000). Acupuncture may be associated with serious adverse events. *British Medical Journal*, 320(7233), 513-514.
- Filshie, J. (2001). Safety aspects of acupuncture in palliative care. *Acupuncture in Medicine*, 19 (2), 117-122.
- Filshie, J., & Cummings, M. (1999). *Western Medical Acupuncture*. 31-59. In: Ernst E, White A, editors. *Acupuncture: A Scientific Appraisal*. Oxford: Butterworth Heinemann.
- Girou, E., Loyeau, S., Legrand, P., Oppein, F., & Brun-Buisson, C. (2002). Efficiency of handrubbing with alcohol based solution versus standard handwashing with antiseptic soap: randomized clinical trial. *BMJ*, 325(7360), 362-367.
- Grabowska, C., Squire, C., MacRae, E., & Robinson, N. (2003). Provision of acupuncture in a university health

centre - a clinical audit. *Complementary Therapies in Nursing and Midwifery*, 9(1), 14-19.

Grove, G.L., Zerweck, C.R., Heilman, J.M., & Pyrek, J.D. (2001). Methods for evaluating changes in skin condition due to the effects of antimicrobial hand cleansers: Two studies comparing a new waterless chlorhexidine preparation with a conventional water-applied product. *American Journal of Infection Control*, 29(6), 361-369.

Ha, K.Y., & Kim, Y.H. (2003). Chronic inflammatory granuloma mimics clinical manifestations of lumbar spinal stenosis after acupuncture: a case report. *Spine*, 28(11), 217-220.

Hemsworth, S. (2000). Intramuscular (IM) injection technique. *Paediatric nursing*, 12(9), 17-20.

Hoffman, P. (2001). Skin Disinfection and Acupuncture. *Acupuncture in Medicine*, 19 (2), 112-116.

IAAPT (2003). Standards of safe acupuncture practice by physiotherapists. *International Acupuncture Association of Physical Therapists*.

Infection Control Guidelines. (2004). *Australian Department of Health and Aging*.

Jawahar, D., Elapavaluru, S., & Leo, P.J. (1999). Pneumothorax secondary to acupuncture. *American Journal of Emergency Medicine*, 17(3), 310.

Johnston, G.A., & English, J.S. (2007). The alcohol hand rub: a good soap substitute? *British journal of Dermatology*, 157(1), 1-3.

Jungbauer, F.H.W., Van Der Harst, J.J., Groothoff, J.W., & Coenraads, P.J. (2004). Skin protection in nursing work: promoting the use of gloves and hand alcohol. *Contact Dermatitis*, 51(3), 135-140.

Kampf, G., & Ostermeyer, C. (2002). Intra-laboratory reproducibility of the hand hygiene reference procedures of EN 1499 (hygienic handwash) and EN 1500 (hygienic hand disinfection). *Journal of Hospital Infection*, 52(3), 219-224.

Kao, C.L., & Chang, J.P. (2002). Pseudoaneurysm of the popliteal artery: a rare sequela of acupuncture. *Texas Heart Institute Journal*, 29(2), 126-129.

Kataoka, H. (1997). Cardiac tamponade caused by penetration of an acupuncture needle into the right ventricle. *Journal of Thoracic and Cardiovascular Surgery*, 114(4), 674-676.

Kelsey, J.H. (1998). Pneumothorax following acupuncture is a generally recognized complication seen by many emergency physicians [comment]. *Journal of Emergency Medicine*, 16(2), 224-225.

Kirchgatterer, A., Schwartz, C.D., Holler, E., Punzengruber, C., Hartl, P., & Eber, B. (2000). Cardiac tamponade following acupuncture. *Chest*, 117, 1510-1511.

Korniewicz, R.N., Garzon, R.N., Seltzer, R.N., Kennedy, R.N., & Feinleib, M.D. (2001). Implementing a nonlatex surgical glove study in the OR. *AORN Journal*, 73(2), 435-445.

Korniewics, D.M., El-Masri, M., Broyles, J.M., Martin, C.D., & O'Connell, K.P. (2002). Performance of latex and nonlatex medical examination gloves during simulated use. *American Journal of Infection Control*, 30(2), 133-138.

Korniewics, D.M., El-Masri, M., Broyles, J.M., Martin, C.D., & O'Connell, K.P. (2003). A laboratory-based study to assess the performance of surgical gloves. *AORN Journal*, 77(4), 772-779.

Kung, Y., Chen, F., Hwang, S., Hsieh, J., & Lin, Y. (2005). Convulsive syncope: an unusual complication of acupuncture treatment in older patients. *The Journal of Alternative and Complementary Medicine*, 11(3), 535-7.

Lamar, P., Tillson, T., Scown, F., Grant, P., & Exton, J. (2007). Evidence-Based Recommendations for Hand Hygiene for Health care Workers. *Paper presented at The Physiotherapy Acupuncture Association NZ and The Medical Acupuncture Society of NZ Combined Conference, Auckland, 23rd & 24th June, 2007*.

Laing, A.J., Mullett, H., Gilmore, M.F. (2002). Acupuncture-associated arthritis in a joint with an orthopaedic implant. *Journal of Infection*, 44(1), 43-44.

Lao, L., Hamilton, G.R., Fu, J., & Berman, B.M. (2003). Is acupuncture safe: a systematic review of case

- reports. *Alternative Therapies in Health and Medicine*, 9(1), 72-83.
- Larson, E., & Bobo, L. (1992). Effective hand degerming in the presence of blood. *The Journal of Emergency Medicine*, 10(1), 7-11.
- Lau, S.M., Chou, C.T., & Huang, C.M. (1998). Unilateral sacroiliitis as an unusual complication of acupuncture. *Clinical Rheumatology*, 17(4), 357-358.
- Lau, E., Birnie, D., Lemery, R., Tang, A., & Green, M. (2005). Acupuncture triggering inappropriate ICD shocks. *Europace*, 7, 85-86.
- Lewith, G.T., & White P. (2003). Side effects associated with acupuncture and a sham treatment: perhaps we should take a closer look at what is really responsible? *The Journal of Alternative and Complementary Medicine*, 9(1), 16-19.
- MacPherson, H. (1999). Fatal and adverse events from acupuncture: allegation evidence and the implications [comment]. *The Journal of Alternative and Complementary Medicine*, 5(1), 47-56.
- MacPherson, H., Thomas, K. (2005). Short term reactions to acupuncture - a cross-sectional survey of patient reports. *Acupuncture in Medicine*, 2005, 23(3), 112-120.
- Macpherson, H., Thomas, K., Walters, S., & Fritter, M. (2001). A prospective survey of adverse events and treatment reactions following 34,000 consultations with professional acupuncturists. *Acupuncture in Medicine*, 19(2), 93-102.
- Macpherson, H., Thomas, K., Walters, S., & Fitter, M. (2001). The York acupuncture safety study: prospective survey of 34000 treatments by traditional acupuncturists. *British Medical Journal*, 323, 486-487.
- Matsumura, Y., Inui, M., & Tagawa, T. (1998). Peritemporomandibular abscess as a complication of acupuncture: a case report. *Journal of Oral and Maxillofacial Surgery*, 56(4), 495-499.
- McAdam, T.K., McLaughlin, R.E., & McNicholl, B. (2002). Are we getting the point? Needlestick injuries – an ongoing problem? *International Journal of STD & AIDS*, 13, 453-455.
- McCormick, R.D., Buchman, T.L., & Maki, D.G. (2000). Double-blind, randomized trial of scheduled use of a novel barrier cream and an oil-containig lotion for protecting the hands of health care workers. *American journal of Infection Control*, 28(4), 302-310.
- Mody, L., McNeil, S.A., Sun, R., Bradley, S.E., Kauffman. (2003). Introduction of a waterless alcohol-based hand rub in a long-term-care facility. *Infection Control and Hospital Epidemiology*, 24(3), 157-159.
- Murray, P.I., Aboteen, N. (2002). Complication of acupuncture in a patient with Behcet's disease. *British Journal of Ophthalmology*, 86(4), 476-477.
- Norheim, A.J., Fonnebo, V. (1996). Acupuncture adverse effects are more than occasional case reports: results from questionnaires among 1135 randomly selected doctors, and 197 acupuncturists. *Complementary Therapies in Medicine*, 4, 8-13.
- Norheim, A.J. & Fonnebo, V. (2000). A survey of acupuncture patients: results from a questionnaire among a random sample in the general population in Norway. *Complementary Therapies in Medicine*, 8(3), 187-192.
- Odsberg, A., Schill, U., & Haker, E. (2001). Acupuncture treatment: side effects and complications reported by Swedish physiotherapists. *Complementary Therapies in Medicine*, 9(1), 17-20.
- Origuchi, N., Komiyama, T., Ohyama, K., Wakabayashi, T., & Shigematsu, H. Infectious aneurysm formation after depot acupuncture. *European Journal of Vascular and Endovascular Surgery*, 20(2), 211-213.
- Park, J.H., Shin, H.J., Choo, S.J., Song, J.K., & Kim J.J. (2005). Successful removal of migrated acupuncture needles in a patient with cardiac tamponade by means of intraoperative transesophageal echocardiographic assistance. *Journal of Thoracic and Cardiovascular Surgery*, 130(1), 210-212.
- Patel, H.B., Fleming, G.J.P., & Burke, F.J.T. (2004). Puncture resistance and stiffness of nitrile and latex dental examination gloves. *British Dental Journal*, 196(11), 695-700.

- Pearce, L. (2002). To swab or not to swab – an exploration of opinion. *AACP Journal (Sept 2002 edition)*, 62-66.
- Peuker, E. (2004). Case report of tension pneumothorax related to acupuncture. *Acupuncture in Medicine*, 22(1), 40-43.
- Peuker, E., Gronemeyer, D. (2001). Rare but serious complications of acupuncture: traumatic lesions. *Acupuncture in Medicine*, 19(2), 103-108.
- Peuker, E.T., White, A., Ernst, E., Pera, F., & Filler, T.J. (1999) Traumatic complications of acupuncture : Therapists need to know human anatomy. *Archive of Family Medicine*, 8, 553-558.
- Practical Guide. (2007). Intramuscular injection. *Paediatric Nursing*, 19(2), 37.
- Rampes, H., & James, R. (1995). Complications of acupuncture. *Acupuncture in Medicine*, 13, 26-33.
- Rosted, P. (1997) Adverse reactions after acupuncture: A review. *Critical Reviews in Physical and Rehabilitation Medicine*, 9(3&4), 245-264.
- Russell-Fell, R.W. (2000). Avoiding problems: evidence-based selection of medical gloves. *British Journal of Nursing*, 9(3), 139-146.
- Sato, M., Katsumoto, H., Kawamura, K., Sugiyama, H., & Takahashi, T. (2003). Peroneal nerve palsy following acupuncture treatment: a case report. *Journal of Bone and Joint Surgery*, 85-A(5), 916-918.
- Saw, A., Kwan, M.K., & Sengupta, S. (2004). Necrotising fasciitis: a life-threatening complication of acupuncture in a patient with diabetes mellitus. *Singapore Medical Journal*, 45(4), 180-182.
- Schulman, D. (2004) A framework for classifying unpleasant responses to acupuncture. *Journal of Chinese Medicine*, 75, 10-14.
- Shah N, Hing C, Tucker K, Crawford R. (2002). Infected compartment syndrome after acupuncture. *Acupuncture in Medicine*, 20(2-3), 105-106.
- Standards of Practice for Acupuncture Health (Infectious Diseases) Regulations. (1990). *Chinese Medicine Registration Board of Victoria*.
- Tanner, J. (2006). Surgical gloves: perforation and protection. *The Journal of Perioperative Practice*, 16(3), 148-152.
- Trick, W.E., Vernon, M.O., Hayes, R.A., Nathan, C., Rice, T.W., Peterson, B.J., Segreti, Welbel, S.F., Solomon, S.L., & Weinstein, R.A. Impact of ring wearing on hand contamination and comparison of hand hygiene agents in a hospital. *Hand Hygiene in a Hospital*, 36(11), 1383-1390.
- Trick, W.E., & Weinstein, R.A. (2001). Hand hygiene for intensive care unit personnel: Rub it in. *Critical Care Medicine*, 29(5), 1083-1084.
- Uhm, M.S., Kim, Y.S., Suh, S.C., Kim, I., Ryu, S.H., Lee, J.W., & Moon, J.S. (2005). Acute pancreatitis induced by traditional acupuncture therapy. *European Journal of Gastroenterology and Hepatology*, 17(6), 675-677.
- Vilke, G.M., Wulfert, E.A. (1997). Case reports of two patients with pneumothorax following acupuncture [comment]. *Journal of Emergency Medicine*, 15(2), 155-157.
- Vincent, C. (2001). The safety of acupuncture: Acupuncture is in safe hands of competent practitioners. *British Medical Journal*, 323, 467-468.
- Winnefeld, M., Richard, M.A., Drancourt, M., & Grob, J.J. (2000). Skin tolerance and effectiveness of two hand decontamination procedures in everyday hospital use. *British journal of Dermatology*, 143(3), 546-550.
- Woo, P., Li, J., Tang, W., & Yuen, K. (2001). Acupuncture myobacteriosis. *New England Journal of Medicine*, 345 (11), 843.
- Walsh, B. (2001) Control of infection in acupuncture. *Acupuncture in Medicine*, 19(2), 109-111.
- White A. (2004) A cumulative review of the range and incidence of significant adverse events associated with

- acupuncture. *Acupuncture in Medicine*, 22(3), 122-133.
- White, A. (2006). The safety of acupuncture – evidence from the UK. *Acupuncture in Medicine*, 24 (Suppl), S53-57.
- White, A. (2004). A cumulative review of the range and incidence of significant adverse events associated with acupuncture. *Acupuncture in Medicine*, 22(3), 122-133.
- White, A., Cummings, M., Hopwood, V., & MacPherson, H. (2001). Informed consent for acupuncture – an information leaflet developed by consensus. *Acupuncture in Medicine*, 19(2), 123-129.
- White, A., Ernst, E. (1999). Learning from adverse events of acupuncture [comment]. *The Journal of Alternative and Complementary Medicine*, 5(5), 395-396.
- White A, & Ernst E. (2001). Adverse events associated with acupuncture reported in 2000. *Acupuncture in Medicine*, 19(2), 136-137.
- White, A., Hayhoe, S., Hart, A., & Ernst, E. (2001). Adverse reactions following acupuncture: prospective survey of 32000 consultations with doctors and physiotherapists. *British Medical Journal*, 323, 485-486.
- White, A., Hayhoe, S., Hart, A., & Ernst, E. (2001). Survey of adverse events following acupuncture (SAFA): a prospective study of 32 000 consultations. *Acupuncture in Medicine*, 19(2), 84-92.
- WHO (1999). Guidelines on basic training and safety in acupuncture. *World Health Organisation Traditional Medicine Unit*.
- Willms, D. (1991). Possible complications of acupuncture. *The Western Journal of Medicine*, 154(6), 736-737.
- Yamashita, H., Tsukayama, H., Tanno, Y., Nishijo, K. (1999). Adverse events in acupuncture and moxibustion treatment: a six-year survey at a national clinic in Japan. *The Journal of Alternative and Complementary Medicine*. 5(3), 229-236.
- Yamashita, H., Tsukayama, H., Hori, N., Kimura, T., & Tanno, Y. (2000). Incidence of adverse reactions associated with acupuncture. *The Journal of Alternative and Complementary Medicine*, 6(4), 345-350.
- Yamashita, Y., Masuyama, S., Otsuki, K., & Tsukayama, H. (2006). Safety of acupuncture for osteoarthritis of the knee – a review of randomised controlled trials, focusing on specific reactions to acupuncture. *Acupuncture in Medicine*, 24 (Suppl), S49-52.
- Yamashita, H., Tsukayama, H., White, A.R., Tanno, Y., Sugishita, C., & Ernst, E. (2001). Systematic review of adverse events following acupuncture: the Japanese literature. *Complementary Therapies in Medicine*, 9(2), 98-104.
- Zaglaniczny, K. (2001). Latex allergy: are you at risk? *AANA Journal*, 69(5), 413-424.

