

Skin Penetration Guidelines

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Introduction

Acts of skin penetration have been performed throughout the world since man first learned how to manipulate sharp objects. The result has been the development of activities that are performed for medical, religious, cosmetic and cultural reasons. The multicultural nature of Australian society has seen the spread of these activities such that many are considered normal. How many people have submitted to ear piercing, or tattooing or less visibly, acupuncture? Skin penetration activities, however, are not just widespread, they are also heterogeneous and this complicates their control and more importantly their infection control. The Skin Penetration Guidelines exist to provide performers of skin penetration with safe methods to prevent the transfer of infection.

Skin penetration as performed in the health care setting by health professionals is not the subject of this paper. Infection control processes in that setting have long been the province of the individual and NSW has led Australia in putting in place standards as part of health professional registration acts.

The skin penetration acts refer to are those performed by tattooists, beauty therapists, ear piercers, body piercers, and acupuncturists and incidentally by hairdressers and barbers.

Regulating skin penetration

How do we ensure that these activities are performed safely?

In an era of deregulation, imposition of restrictions on small business through licensing and registration is not readily supported. Rather industry generated codes of practice are seen as an acceptable mechanism for control. Thus to achieve safe skin penetration practices requires readily available methods and

willing participation of the relevant industries. Safe practices can be controlled through imposition of a basic infection control Regulation.

It is only relatively recently that the relationship between skin penetration and disease transmission has been understood. Blood borne pathogens such as Hepatitis B, Hepatitis C and HIV are the most notorious. Capable of causing chronic illness and death they have a high media profile. The latency of these pathogens, before the effects of infection are discovered, has

Guidelines were issued in 1991. These guidelines were designed to provide performers of skin penetration with methods that if followed would assist in complying with the Regulation. Methods encompassed by the guidelines included the cleaning, disinfection and sterilising of instruments, equipment and surfaces.

Survey of compliance with the guidelines

In 1994 the NSW Public Health Units in cooperation with the Local

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meant that their spread is rarely attributed to skin penetration activities. A significant public health risk arises from skin penetration when infection control procedures are inadequate.

To address this public health risk in New South Wales, skin penetration is regulated under the Public Health Act 1991 - Regulation. The Regulation states under, Skin penetration to avoid infection, the requirements for a person to carry out skin penetration procedures. These requirements include:

- a) notifying the local authority of the business address, and
- b) that the premises must be clean and hygienic, and
- c) any article used which may penetrate the skin must be sterile, and
- d) the article is disposed of after use or sterilised before being used on another person, and
- e) clean all articles not penetrating skin before reuse on another person, and
- f) the performer must be clean with no exposed skin lesions.

In support of the Public Health Regulation, the Skin Penetration

Government Authorities conducted a survey throughout NSW of premises conducting skin penetration activities. Based upon the Guidelines a questionnaire was developed as a tool for surveying the level of compliance amongst premises performing skin penetration. More than 800 skin penetration premises across NSW were included in the survey. Hairdressing was the predominant activity performed within the premises surveyed.

The survey found that:

- 1) Many premises did not possess a copy of the Guidelines.
- 2) Businesses had failed to notify the Local Council of their business address.
- 3) Some Councils were found not to be maintaining lists of the skin penetration premises.
- 4) Non-compliance with the disinfection and sterilisation requirements for instruments and equipment amongst hairdressers and beauty therapists.
- 5) Contaminated waste disposal did not comply with the Environmental Protection Authority requirements with sharps disposal via the municipal waste service.

- 6) Hand washing facilities and equipment cleaning facilities were inadequate.

The survey and Skin Penetration Guidelines were interpreted differently across NSW. Uncertainty about the activities encompassed by the Guidelines was demonstrated by the inclusion of podiatry in one area and exclusion of hairdressing in some areas surveyed.

Possession of the Guidelines was not shown to improve the level of compliance amongst performers of skin penetration. This suggests that there is a difficulty in interpreting and applying the current Guidelines or that a greater effort is needed to educate the relevant industries about the practicalities of compliance. The reported incorrect processing of instruments and equipment could be the result of deficiencies in the Guidelines.

For example razors are only referred to in relation to tattooing, and for disinfection use of glutaraldehyde is indicated. Hairdressers in particular were identified as not complying with the Guidelines with reports of them following the requirements of legislation repealed since the issue of the Guidelines.

The results of the survey indicated the need for a review and revision of the Skin Penetration Guidelines. The ultimate success of such a review is only measurable by compliance of industry with the revised guidelines. The initial phase of the review has been the identification of stakeholders. The stakeholders include government departments, associations, industry groups and education bodies. Gaining the support of the government departments and associations has been essential due to their role in assessment of compliance. Identification of industry groups has

proven to be a more difficult task with performers of many activities not represented by a coherent organisation.

Revising the guidelines

What infection control measures should be included in the guidelines? Risk associated with some activities is extremely low. For example in the process of cutting hair there is no need or intent to penetrate the skin. When scissors or combs penetrate the skin, cleaning and disinfection procedures should be undertaken to reduce infection transmission risk. The risk incurred from the use of hollow bore needles as occurs in tattooing is of a different order. During these activities it is quite clear that sterility of the penetrating needle must be guaranteed for each client.

A balance must be achieved between the infection control standard required and the resources available for the industry. Resources to consider are economic and educational. Increased cost or difficulty for industry will lead to a low level of compliance. Expecting glutaraldehyde to be used for disinfection, for example, has costs associated with the attendant occupational health and safety requirements. If compliance is to be achieved, industries conducting low risk activities, such as hair cutting, should not be constrained by the requirements for beauty enhancement or tattooing with higher risks of infection transmission.

Low cost, low infection risk strategies include encouraging the adoption of single use only equipment, as with the use of disposable needles and razors. This reduces the need for equipment processing and hence the risks associated with reuse and inadequate cleaning, disinfection and sterilisation. Where sterilisation is required and reuse is necessary, as for example with

tattooing equipment, autoclaving must remain a requirement.

The final stage in revising the Skin Penetration Guidelines will be a process of industry and community consultation. To gain the broadest possible community input, it is envisaged that contact with minority groups through local language newspapers be undertaken. In this way it is hoped that performers of skin penetration as part of their cultural heritage will evaluate and incorporate the guidelines in their practices.

Conclusion

In conclusion the skin penetration guidelines are designed to support the safe performance of skin penetration outside of the professional health care setting. Experience in health care environments has shown that compliance with cleaning, disinfection and sterilisation is not easily achieved. Given that this is an environment with a large education and economic resource, the implications for the non-health care setting skin penetration premises are clear. The Skin Penetration Guidelines must be easy to read and understand, provide step by step instructions and have minimal resource implications.

The attainment of voluntary compliance is the ultimate goal of this revision. Compliance is achievable only by inclusion of industry groups and acceptance by all the relevant industries of the process. The kind of high tech strategies of professional health care are inappropriate for some of these industries. Ways must be found to achieve safe practices in skin penetration settings by low cost, low risk strategies, with the full cooperation of the relevant industries.

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