

# Ten year evaluation of single use gloves at the United Dental Hospital of Sydney (1985-1994)

## Abstract

Since 1984-85 the United Dental Hospital has been invited by various companies to trial new gloves for dental practice.

Subsequently, an evaluation form was developed to assess the product for our own requirements.

The gloves were required to meet Australian Standards. In 1992, the Australian Standards AS 4011 was published, the criteria included packaging, labelling, date of manufacture and batch number.

## Introduction

In the early eighties with the arrival of HIV/AIDS the need to find appropriate gloves for dental practice assumed a great importance. Already Hepatitis B had played its part in convincing some dentists for the need to wear gloves for the "identified" infectious patients.

The situation was compounded with the arrival of both identified and unidentified HIV/AIDS patients presenting for dental treatment. The social issues associated with the disease, as portrayed by the media and the fear of discrimination and denial of treatment prompted non-disclosure by some patients.

In some instances practitioners who had been out of dental school for a number of years found the acceptance of wearing gloves difficult and some techniques had to be re-learned wearing gloves.

Following the well published case of Dr Acer, the Florida Dentist who was

TABLE 1: Dental utilisation of single use, non sterile latex powdered glove comparison

COMPANY	GOOD	SATISFACTORY	FAIR	UNSATISFACTORY
A <sub>1</sub> (long cuff)	-	✓	-	-
A (short cuff)	✓	-	-	-
A	-	-	-	✓
B	✓	-	-	-
B	-	-	-	✓
C	-	-	-	✓
D	-	-	✓	-
D	-	✓	-	-
E	-	-	✓	-
F	✓	-	-	-
G	-	-	✓	-
H	-	✓	-	-
H	-	✓	-	-

said to have transmitted HIV/AIDS to his patients, infection control in dental practice became of paramount importance, including the need to be informed of their patient's medical condition which may include an infectious blood borne condition. Slowly dental practitioners have accepted that wearing gloves was a necessary part of practice. Up until 1984, gloves were worn only for sterile procedures and for "known infectious"

hepatitis B cases, and in some practices not at all. The introduction of medical history sheets, into dental practice resulted in finding patients presenting with previously undisclosed blood borne infectious conditions.

Dental practitioners had become more aware of the need to find suitable gloves both in quality and price to allow both themselves and their staff to practice safely and reduce the risk of transmission of infection.

Hence the next step was to find the glove best suited to dental practice and to find gloves that fitted well, were comfortable and were not the cause of any allergy problem.

During this time many entrepreneur glove manufacture companies appeared and many poor quality gloves flooded the market as the demand for gloves increased. This has in some cases caused problems with gradual sensitising of the skin to compounds and proteins in the glove material itself. The compounding problem is, that dental personal wear gloves up to seven hours a day five days a week therefore it is imperative that staff find a glove that is comfortable, causes them no injury, ie skin irritation, and that also allows for the tactile requirements for dentistry.

TABLE 2: Dental utilisation of single use **non sterile latex non-powdered** glove comparison

COMPANY	GOOD	SATISFACTORY	FAIR	UNSATISFACTORY
A	✓	-	-	-
B	✓	-	-	-
C	-	✓	-	-

trialled and assessed more than twenty brand name gloves which included:

1. single use, non sterile, latex powdered glove
2. single use, non sterile, latex non powdered glove
3. single use, sterile, latex powdered glove
- 3.1 single use, sterile, non allergenic

#### References

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- 3 M.F. Fay, W.C. Beck, L. Checchi, D. Winkler. Gloves: New Selection Criteria. Quintessence International, p.25-29 Vol 26, No. 1, 1995.
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- 6 F.J. Burke, N.H.F. Wilson, Non-Sterile Gloves: Evaluation of Seven Brands Dental Update, p. 336-339 October 1987.
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Table 3: Dental utilisation of single use, **powdered sterile latex** glove comparison

COMPANY	GOOD	SATISFACTORY	FAIR	UNSATISFACTORY
A	✓	-	-	-
B	✓	-	-	-

Table 3.1: Dental utilisation of single use, **sterile, non allergenic, non powder** glove comparison

COMPANY	GOOD	SATISFACTORY	FAIR	UNSATISFACTORY
A	✓	-	-	-

In dentistry the requirements for gloves are:

1. form fitting
  2. single use
  - 3, sterile or non sterile
  4. ambidextrous (fits either hand)
  5. reasonable tactile sensitivity
  6. good quality glove
- The United Dental Hospital has

non powder glove

4. single use, non sterile, vinyl non powdered glove
5. single use, non sterile, vinyl powdered glove

The evaluation was for our requirements only and in no way reflects the quality of the products evaluated.

Table 4: Dental utilisation single use **non sterile vinyl non-powdered** glove comparison

COMPANY	GOOD	SATISFACTORY	FAIR	UNSATISFACTORY
A	✓	-	-	-

TABLE 5: Dental utilisation single use, **non sterile, vinyl powdered** glove

COMPANY	GOOD	SATISFACTORY	FAIR	UNSATISFACTORY
A	✓	-	-	-

Correspondence and Reprint Requests to:  
**J Borgert, CNC Infection Control,**  
**The United Dental Hospital,**  
**2 Chalmers St,**  
**Surry Hills, NSW 2010**  
**Telephone: (02) 282 0276**