

A CLINICAL EVALUATION: Ansell No Powder examination gloves

THE PRODUCT

Dentistry has followed in the footsteps of the medical profession in realising the need to wear latex gloves to protect themselves and their patients from the hazards of HIV and Hepatitis cross-infection. But Ansell Medical and other dental glove manufacturers have worked to ensure that dentists do not go the way of many hospitals in cheap glove usage which has led to 16 per cent of health professionals becoming sensitised to latex.

Single-use No Powder Examination gloves from Ansell Medical give dentists barrier protection without the risks of latex allergies. Thorough washing during the manufacturing process ensures that No Powder Exam gloves have negligible to undetectable protein and allergen levels.

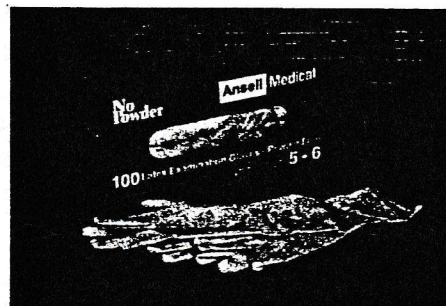
David Chapman, Product Manager at Ansell Medical, said that buying No Powder Examination Gloves meant that dentists could implement necessary infection control procedures "without spending a fortune".

"No Powder Exam carries the CE mark approval, giving dentists confidence that these gloves are manufactured to stringent specifications."

Use of gloves before the study

Forty per cent of the evaluators stated that they wore a new pair of gloves for each patient, with each pair being worn an average of 17.5 minutes (range 10-25 minutes). Fifty per cent of the evaluators used gloves which were available in a large range of standardised sizes (e.g. 6,7) but none used gloves manufactured for left and right hands.

Eighty per cent of the evaluators stated that the gloves used prior to the study used no reduction in hand/finger move-

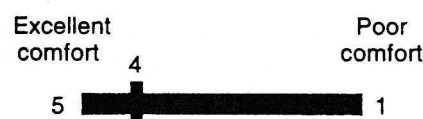


ment, but 50 per cent did state that they caused a reduction in tactile sensitivity. One evaluator considered that the gloves worn at that time caused some skin irritation.

Ansell No Powder Examination Gloves

Comfort

Overall the level of comfort of the gloves used prior to the study was rated as follows:



Presentation

The pack was rated as easy to open by 70 per cent of the evaluators. Of the remainder, two evaluators found the tear off cardboard insert difficult to remove.

The packaging survived intact until the pack was empty for 80 per cent of the evaluators. Of the remainder, in one case the cellophane insert came away and in the other the side of the box came unfastened.

Stickiness

Sixty per cent of the evaluators used the gloves for single patient use only, the remaining 40 per cent used them for an average of three patients (range 20-5). Of these four evaluators, two found an in-

Materials and methods

A questionnaire was designed to provide information on the evaluators' opinions of Ansell No Powder in clinical practice. Ten members of the PREP panel participated. Each was sent a box of 100 Ansell No Powder examination gloves in November 1995. They were asked to complete their evaluation as soon as the gloves were used up. The response rate to the questionnaire was 100 per cent.

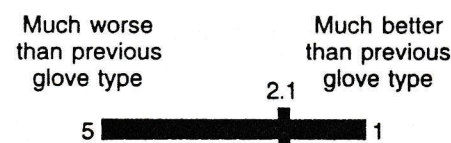
crease in stickiness during use but they did not consider this to be a problem.

Ease of donning

Seventy per cent of the evaluators found the Ansell No Powder gloves easy to put on. Of the remainder two evaluators stated that if the hands were at all damp then this became difficult. Ninety per cent found that the size chosen was satisfactory.

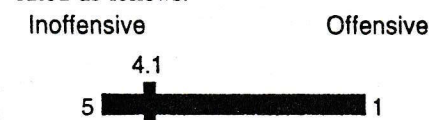
Puncture resistance

When asked to rate the puncture resistance of Ansell No Powder the result was as follows:



Odour

The smell of Ansell No Powder gloves was rated as follows:



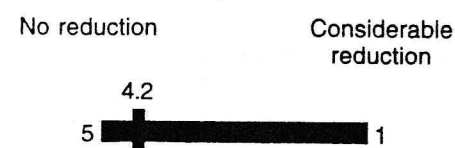
Taste

No evaluators reported adverse patient comments on the taste of Ansell No Powder

gloves. No evaluators experienced any skin irritation when wearing Ansell No Powder gloves.

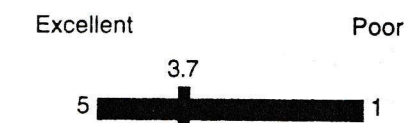
Hand movement

When asked to rate the reduction in hand movement when wearing the gloves, the result was as follows:



Tactile sensitivity

The tactile sensitivity of the Ansell No Powder gloves was rated as follows:

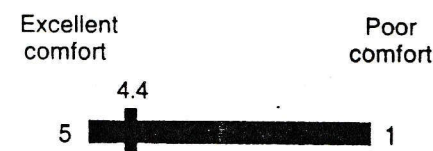


Slippiness

Forty per cent of evaluators reported some difficulty with the Ansell No Powder gloves due to slippiness of the gloves' surface during procedures such as endodontics and the fitting of veneers.

Overall comfort

The evaluators gave an overall rating for level of comfort of Ansell No Powder gloves as follows:



The verdict

When asked to comment on the major advantages and disadvantages of the Ansell No Powder gloves the following comments were made:

a) Advantages

"No powder" (5 evaluators), "comfortable and good fit" (4), "strong" (2)

b) Disadvantages

"difficult to put on" (4 evaluators), "slippiness" (3), "less tactile" (2)

When asked whether the evaluators would purchase Ansell No Powder gloves if available at £4.00 per box of 100, 60 per cent stated that they would, but if the price was 50 per cent higher than average, only 10 per cent would purchase them.

Final comments included:

"very good — better than the product I was using before" (1) "some gloves had holes," (3) "would buy for my dental nurse who is allergic to powder if they come in size 4" (1). "good gloves but hard to don if hands wet" (1)

Conclusions

Ansell No Powder examination gloves were subjected to an evaluation of 50 pairs in clinical practice by 10 members of the PREP panel.

Based on this assessment, criticisms emerged such as difficulty in donning if hands wet, some gloves with punctures and some surface slippiness. However, the overall comfort score of 4.4 (on a visual analogue scale of 5-excellent comfort and 1-poor comfort) was better than the rating for the gloves in use prior to the study (4.0) and also higher than the mean score for comfort given by the same evaluators for a powder-free surgical glove evaluated in September 1995. The absence of powder was seen as an advantage by 50 per cent of the evaluators.

Sixty per cent of the evaluators stated that they would purchase Ansell No Powder gloves if available at £54.00 per box and the acceptability of the gloves would possibly be improved further by the testing of the gloves for defects at the time of manufacture.

The PREP panel (Product Research and Evaluation by Practitioners) was established in 1993 to carry out evaluations of dental products and techniques.

The panel currently comprises 21 evaluators from all regions of the UK, all of whom are practising dentists. The average age since graduation is 18 years and five of the panel members are female. To date, 20 evaluations have been completed, results of which can be obtained from the authors.

Comments from manufacturer

We have responded to the packaging difficulty report by two evaluators by removing the cellophane insert and re-assessing the amount of glue required to seal the boxes. With regard to the ease of putting on Ansell No Powder, we have found that users occasionally find no powder gloves more difficult to don if their usual glove is pre-powdered or if their hands are damp post-washing, or hot and sweaty.

The low puncture resistance score has given rise to concern. However, of the 15 million gloves sold in the UK up to March 1996, only nine gloves have been returned by users for quality inspection, and one of these was because of pinholes.

The Ansell No Powder glove is inspected to TSSD/300/010 which allows for one per cent of gloves being defective. Finally, the reported surface slip may be a personal thing. Our previous feedback has been that users find the powder-free examination glove has a better grip than the powdered alternative.

Acknowledgements

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