

Patient Attitudes to Glove Use by Orthodontists

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Abstract. *The aim of this study was to evaluate the awareness of orthodontic patients of the importance of glove wearing by orthodontists, and consisted of a patient completed questionnaire carried out at an orthodontic clinic in Ireland. The subjects were 194 consecutive patients [122 (63 per cent) female, 72 (37 per cent) male; mean \pm SD age: 15.5 \pm 2.2 years] attending an orthodontic clinic. They completed a questionnaire designed to determine their attitudes to the wearing of gloves by orthodontists.*

Most patients (97 per cent; n = 188) considered that orthodontists should routinely wear gloves. However, approximately 15 per cent of patients (n = 30) would attend an orthodontist who did not wear gloves. Ninety-four per cent (n = 182) of patients considered that gloves were worn to protect both the orthodontist and the patient. A total of 86.5 per cent (n = 168) of patients thought that the orthodontist should change gloves between patients.

The overwhelming majority of patients surveyed demonstrated a strong awareness of the importance of glove wearing by orthodontists. The results suggest that many patients will not attend an orthodontist who does not wear gloves during treatment.

Index words: Cross-infection, Disposable Gloves, Patient Attitudes, Questionnaires.

Introduction

The growing incidence of infectious diseases such as hepatitis B and human immunodeficiency virus (HIV) infection in recent years has led to an increased emphasis on the importance of good cross-infection control in dentistry (Howard, 1989; Runnells 1988). Glove wearing by dentists during contact with patients has been advised by many authorities (Centres for Disease Control, 1986; British Dental Association, 1987). Recent studies have indicated increasing use of cross-infection control procedures by the dental profession (Mitchell and Russell, 1989; Verrusio *et al.*, 1989; Yablon *et al.*, 1989).

It has been suggested that cross-infection control in orthodontics is a special case and that orthodontists may not need to wear gloves routinely (Fein, 1989; Usiskin, 1989). This view has been refuted on scientific and medico-legal grounds (Chua *et al.*, 1996). It has been shown that orthodontists may encounter blood contact with considerable frequency (Cash, 1988). Since blood may be trapped beneath fingernails for lengthy periods of time (Allen and Organ, 1982) with the potential to transmit infections from one patient to another, glove wearing while treating patients may be considered appropriate for orthodontists, in common with other dental practitioners. However, reports from the United Kingdom (Evans, 1989; Burke *et al.*, 1994), the USA (Cash, 1988; Woo *et al.*, 1992) and Europe (Cha *et al.*, 1994) have indicated that the level of glove use by orthodontists is lower than that of general dental practitioners.

While studies have been undertaken to evaluate orthodontists' attitudes to glove use, the attitude of orthodontic patients to glove wearing by orthodontists are also pertinent. This includes the reasons why they think orthodontists should wear gloves.

This study aimed to evaluate the awareness of orthodontic patients of the importance of glove wearing by orthodontists.

Subjects and Methods

Patients attending a dedicated orthodontic clinic were asked to participate in this study. A questionnaire designed to elucidate the patients' attitudes to the wearing of gloves by orthodontists was utilized. This questionnaire was based on one used in an earlier study of general patients attending a dental hospital (Burke *et al.*, 1991). The questionnaires were distributed to 194 consecutive patients [122 (63 per cent) female, 72 (37 per cent) male; mean \pm SD; age: 15.5 \pm 2.2 years]. Each patient completed the questionnaire in the surgery.

The questions asked were:

1. Do you consider that orthodontists should wear gloves while treating patients?
2. Are gloves worn to protect the orthodontist or the patient?
3. Would you attend an orthodontist who did not wear gloves?
4. Do you consider that the orthodontist should change gloves between patients, or is washing the gloved hands sufficient?

Results

The results are illustrated in Figs 1-4.

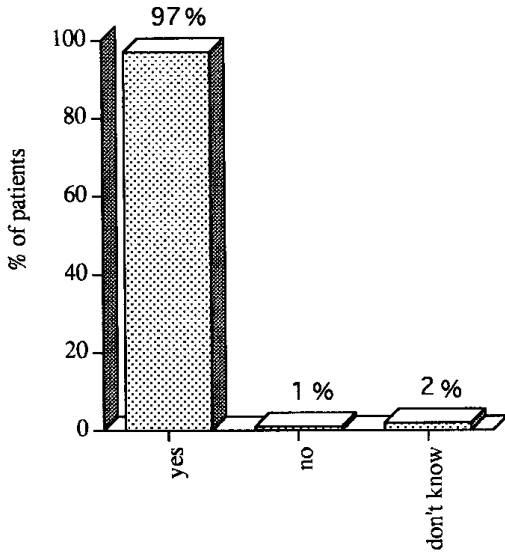


Fig. 1 Should orthodontics wear gloves?

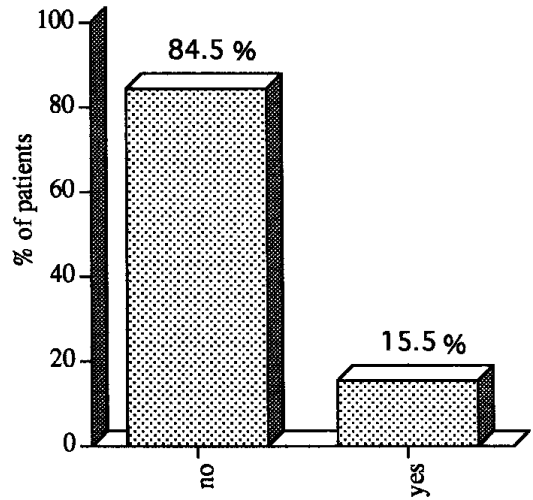


Fig. 2 Are gloves worn to protect the orthodontist or the patient?

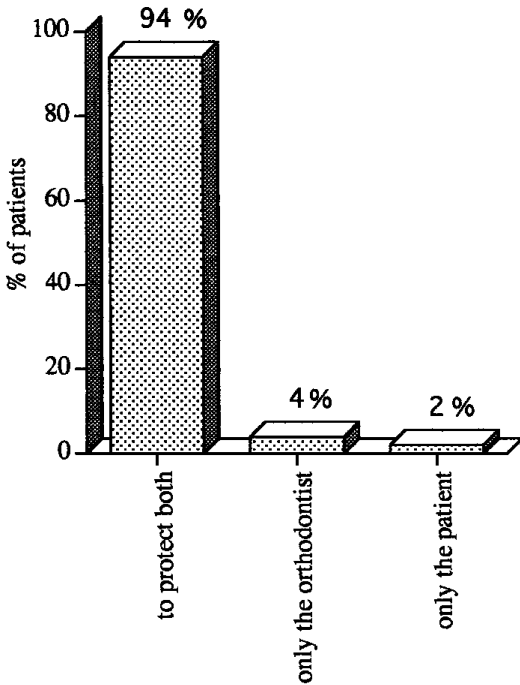


Fig. 3 Would you attend an orthodontist who did not wear gloves?

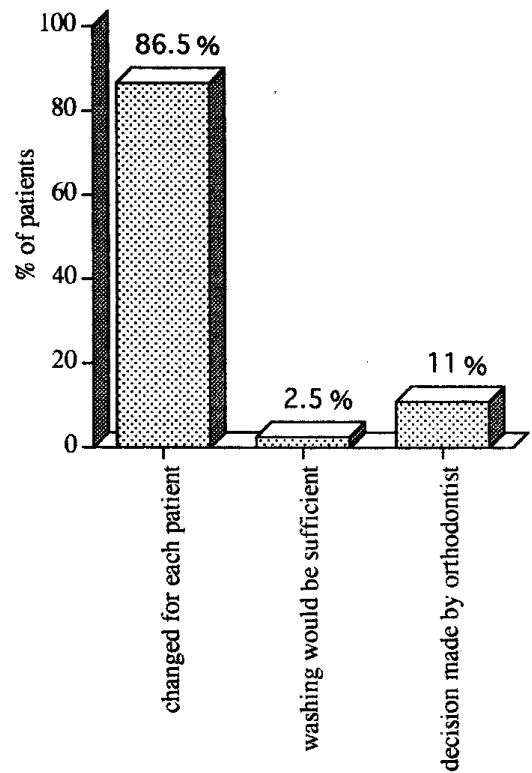


Fig. 4 Do you consider that the orthodontist should change gloves between patients, or is washing the gloved hands sufficient?

Discussion

This study demonstrates that the overwhelming majority of patients surveyed have a strong awareness of the importance of glove wearing by orthodontists. In a study of patients attending the radiography department of a dental hospital in England, Burke *et al.* (1991) reported that 83 per cent of patients felt that glove wearing was necessary. Similarly, 87 per cent of patients attending a general dental practice in the United States of America surveyed by Yoder (1985) stated that glove wearing was essential. The higher figure (97 per cent) in this study suggests increasing public awareness of the importance of cross-infection

control in the intervening years. However, Cha *et al.* (1994), in a study of German orthodontists, showed that only 16.9 per cent of those surveyed considered the wearing of gloves to be an absolute necessity during orthodontic treatment. A study carried out in England in the same year demonstrated that 60 per cent of surveyed orthodontists wore gloves routinely (Burke *et al.*, 1994).

The percentage (15 per cent) of those who would attend for treatment when gloves were not worn is much lower than the figure (51.1 per cent) obtained in the study by Burke *et al.* (1991). However, this figure conflicts with the

fact that only 1 per cent of patients felt that glove wearing was unnecessary.

The percentage of patients (86.5 per cent) who felt that gloves should be changed after each patient closely reflects the findings of Burke *et al.* (1991). In their study 85.6 per cent of patients attending a dental hospital felt that gloves should be changed between patients. Of the orthodontists surveyed by Burke *et al.* (1994) who routinely wear gloves, only 17 per cent wore new gloves for each patient.

It is of interest to note that 94 per cent of patients surveyed considered that the wearing of gloves protected both the operator and the patient. This is at variance with a study in Bristol in 1987 (Bowden *et al.*, 1989) which surveyed patients attending an urban general dental practice and a dental hospital. In this study, 31 per cent of patients surveyed felt that the main reason for wearing gloves was to protect the operator from the patient. In their survey of German orthodontists' attitudes to glove use Cha *et al.* (1994) found that only 61.3 per cent believed that wearing gloves protected their patients from cross-infection. On the other hand, 84.7 per cent of the orthodontists surveyed considered that the use of rubber gloves protected the orthodontist.

There is evidence from various studies suggesting that glove use among orthodontists is significantly lower than that of general practitioners (Burke *et al.*, 1991; Cash, 1988; Cha *et al.*, 1994; Evans, 1989; Woo *et al.*, 1992). The results of this study suggest that many patients will not attend an orthodontist who does not appear to maintain adequate cross-infection control standards.

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