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Clinician and Patient Attitudes About the Wearing of Masks During Direct Ophthalmoscopy

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Introduction

Patients today are more aware of the need to prevent the spread of communicable diseases in the health care setting. Much of the public concern today is a result of news accounts about the respiratory diseases, avian flu and SARS but began earlier when AIDS and other blood-borne diseases were highlighted by the media. Studies indicate that health care workers are also at risk to the transmission of respiratory diseases. Antibodies to influenza A and B, respiratory syncytial virus and adenovirus were elevated in the serum of surgeons compared to controls.[1] Infection with Mycobacterium tuberculosis is common among physicians;[2] and, one study found infection rates of TB in physicians were twice those of their age-matched counterparts in the U.S. general population.[3]

Several agencies, including the Centers for Disease Control, have published guidelines to prevent the spread of respiratory disease (especially tuberculosis).[4] These guidelines include the use of respiratory protection for health care workers in contact with infectious patients. Surgical "masks" are recommended for protection of health care workers against TB because they are less intrusive, easier to use and more likely to be utilized than more sophisticated personal respirators.[5] Studies have been done on the effectiveness of the various devices,[6] but little has been done to determine the acceptance of masks by health care workers and patients.

Methods

Clinicians at the Optometric Center of Fullerton participated in this study. When a clinician performed direct ophthalmoscopy (Figure 1), he/she wore an Aseptx 1800+ fluid resistant, molded surgical mask. This mask (Figure 2) met the criteria of close fit around the periphery and greater than 96% filtration efficiency. Patients were not masked.

Following ophthalmoscopy, before the clinician left the room to discuss the patient's case with the staff doctor, the clinician gave the patient a questionnaire (Table 1) to be completed while they waited. The clinician also completed a questionnaire (Table 2) at the completion of the exam.

Figure 1. Direct ophthalmoscopy as performed on a patient

Patient Questionnaire

1. Have you ever been examined prior to today by an optometrist who has worn a mask?
   A. Yes B. No
2. How did you feel about your clinician wearing the mask?
   5 Very positive; 4; 3 No opinion; 2; 1 Very negative
3. How well do you think a mask prevents the spread of infections?
   5 Very well; 4; 3 No opinion; 2; 1 Not at all
4. Do you think clinicians should wear a mask when looking? inside your eye?
   A. Yes B. No

Table 1. Questionnaire given to patients after direct ophthalmoscopy.

Figure 2. The 3M 1800+ Aseptex mask worn during ophthalmoscopy

Clinician Questionnaire

1. Have you ever worn a mask while performing an exam?
   A. Yes B. No
2. How did you feel about wearing the mask during direct ophthalmoscopy?
   5 Very positive; 4; 3 No opinion; 2; 1 Very negative
3. How well do you think a mask prevents the spread of infections?
   5 Very well; 4; 3 No opinion; 2; 1 Not at all
4. Do you think clinicians should wear a mask during direct ophthalmoscopy?
   A. Yes B. No
5. How did you perceive your patient's attitude towards you wearing a mask?
   5 Very positive; 4; 3 No opinion; 2; 1 very negative
6. How many times have you used a mask? _____
7. Would you use a mask in the future?
   A. Yes B. No

Table 2. Questionnaire completed by clinicians after the examination

Results

Eighty masks were distributed to clinicians at the Eyecare Center of Fullerton. Thirty-eight patient and 38 clinician questionnaires were completed. The responses to the patient questionnaire and the clinician questionnaire are detailed in Tables 3 and 4.

Patients' Responses

1. Have you ever been examined prior to today by an optometrist who has worn a mask?
   A. Yes(3) 7.9% B. No.(35) 92.1%
2. How did you feel about your clinician wearing the mask?
   5(15) 39.5% Very positive; 4(4) 10.5%; 3(15) 39.5% No opinion; 2(3) 7.9%; 1(1) 2.6% Very negative
3. How well do you think a mask prevents the spread of infections?
   5(15) 39.5% Very well; 4(12) 31.6%; 3(10) 26.3% No opinion; 2(1) 2.6%; 1(0) 0% Not at all
4. Do you think clinicians should wear a mask when looking inside your eye?
   A.Yes(20) 52.6% B.No(16) 42.1% C. Undecided (2) 5.3%

Table 3. Responses to questionnaires given to patients.

Clinicians' Responses

1. Have you ever worn a mask while performing an exam?
   A. Yes(3) 7.9% B. No(35) 92.1%
2. How did you feel about wearing the mask during direct ophthalmoscopy?
   5(4) 10.5% Very positive; 4(5) 13.2%; 3(18) 47.4% No opinion; 2(7) 18.4%; 1(4) 10.5% Very negative
3. How well do you think a mask prevents the spread of infections?
   5(14) 36.8% Very well; 4(9) 23.7%; 3(12) 31.6% No opinion; 2(2) 5.3%; 1(1) 2.6% Very negative
4. Do you think clinicians should wear a mask during direct ophthalmoscopy?
   A. Yes(13) 34.2% B. No(25) 65.8%
5. How did you perceive your patient's attitude towards you wearing the mask?
   5(7) 18.4% Very positive; 4(7) 18.4%; 3(20) 52.6% No opinion; 2(2) 5.3%; 1(2) 5.3% Very negative
6. How many times have you used a mask ? Never (33) 86.8%; Once (3) 7.9%; Twice (1) 2.6%
7. Would you a mask in the future?
   A. Yes(17) 47.4.5% B. No(20) 47.4% C. Maybe(2) 5.3%

Table 4. Responses to questionnaires completed by clinicians

Discussion

A majority of patients (53%) felt clinicians should wear a mask during ophthalmoscopy, while only 42% thought that they should not wear a mask (Figure 3). In contrast, 66% of the clinicians felt they should not wear a mask during ophthalmoscopy while only 34% felt that they should.

Apparently clinicians did not perceive that the patients felt as positively about the masks as they actually did. When asked about their patients' attitudes regarding a clinician wearing a mask only 18.4% thought patients viewed this very positively and 18.4% thought patients felt somewhat positive (Figure 4). Actually, 39.5% of patients felt very positive about clinicians wearing a mask and 10.5% were somewhat positive.

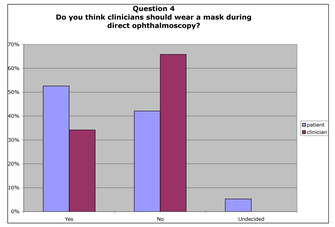

Figure 3. Responses to question 4 on patient and clinician questionnaire

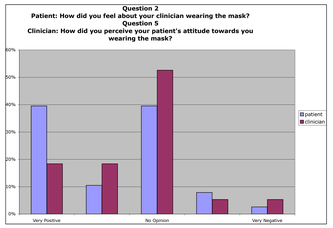

Figure 4. Patient attitudes about clinicians wearing masks.

Most clinicians believed that the masks are fairly effective in preventing the spread of infections, with 36.8% thinking they do this very well and 23.7% somewhat well. It is surprising then, that clinicians were as negative about actually wearing masks. When asked how they feel about wearing a mask, responses were spread evenly from very positive (10.5%), somewhat positive (13.2%), no opinion (47.4%), somewhat negative (18.4%) to very negative (10.5%) on question two of the clinician questionnaire.

It is evident from our survey that many patients seem to view the use of a mask as a show of concern for good health care procedures by the clinician, but many clinicians expressed reluctance to using these masks. This reluctance must be addressed in any considerations either recommending or requiring clinicians to wear masks while examining patients. Even though the use of masks will not be easily accepted there are circumstances in which mask use is necessary and students should be taught about the selection and use of masks.

References

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