Improvements in the use of personal protective equipment in Japanese dental facilities after infection control seminar participation

Keiko OKAMORI, Mayumi AMINAKA, Hiroko INDA, Hitomi KUROSU, Kazuyo ONO, Chie SHIBUYA, Masako UCHIYAMA
Healthcare Associated Infection Control Support Institute (Japan)

1. Background and objectives

In dental settings where the risk of cross contamination and occupational infection is high, adequate use of personal protective equipment (PPE) is important. We, as a group of Certified Nurses in Infection Control®, held a series of infection control seminars for dental healthcare personnel and conducted a survey of the participants after the seminar.

The purpose of our study was to evaluate the current status of the use of PPE in Japanese dental facilities and the effect reported after seminar participation.

*Certified Nurse in Infection Control in Japan is certified by Japanese Nursing Association. Accreditation is given to nurses who have received 6 months or more than 615 hours of schooling and training and passed the examination. Certification is renewed by examination every 5 years. There are 2,560 CNICs throughout Japan as of July 2016.

2. Methods

A self-administered questionnaire was mailed to 181 dental facilities whose members attended one of our 29 infection control seminars held in 2012-2014.

- Period: Oct. 20 – Nov. 30, 2014
- Ethical consideration:
  - Anonymous and voluntarily participation

3. Results

Response rate: 40.9% (74/181)

**BEFORE** seminar participation

Had you been taking measures to improve the use of PPE?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Protection</td>
<td>58.1%</td>
</tr>
<tr>
<td>Gloves</td>
<td>41.9%</td>
</tr>
</tbody>
</table>

Eye protection was most widely recognized as the PPE which required improvement measure, followed by gloves, mask, then disposable apron.

**AFTER** seminar participation

Did you see changes in PPE use?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Protection</td>
<td>66.2%</td>
</tr>
<tr>
<td>Gloves</td>
<td>33.8%</td>
</tr>
</tbody>
</table>

Use of eye protection and gloves increased after seminar participation. In gloves, putting on/off technique and timing of use also changed.

4. Discussion

Proper use of PPE is essential for infection control in dental settings. Our research shows that most dental facilities in Japan already comply with PPE. Measures to improve the use of eye protection are most widely implemented, followed by the use of gloves. Changes in the use of PPE were observed after participating in the infection control seminar. A total of 49 facilities (66.2% of the total participants) increased and/or improved the use of PPE, especially eye protection and gloves, after seminar participation. The results suggest that the seminar served as an effective learning opportunity for proper PPE use. We will continue to promote not only the necessity of the use of PPE but its correct use, which may contribute to improving infection control in dental settings.

No conflicts of interest to declare