

Supplementary Material

**Analysis of implementation status and influencing factors of Standard Infection
Control Methods for dental environmental surfaces by Dental Hygienists in Korea
:a questionnaire-based study**

Hye-Young Yoon^{1,2,3}, Sun-Jung Shin^{1,2,3}, Bo-Mi Shin^{1,2,3}, Hyo-Jin Lee^{1,2,3},

Jin-Sun Choi^{1,2,3}, Kyoung-Nam Kim¹, Soo-Myoung Bae^{1,2,3†}

¹Department of Dental Hygiene, College of Dentistry, Gangneung-Wonju National University,
Gangneung, Republic of Korea

²Research Institute of Oral Science, Gangneung-Wonju National University, Gangneung,
Republic of Korea

³ Research Institute of Dental Hygiene Science, Gangneung-Wonju National University,
Gangneung, Republic of Korea

† Correspondence to: Soo-Myoung Bae, E-mail: edelweiss@gwnu.ac.kr

Supplementary Text S1. Questionnaire

(Convert the content below into a Google Form format to conduct the survey)

Section 1. Questions Regarding General Characteristics

1. What is your gender?

☐ Female ☐ Male

2. What is your age? (e.g., 25 years old, etc.) _____

3. What is your total work experience? (e.g., 1 year, 1 year and 6 months, etc.) _____

4. What is your working area?

☐ Seoul ☐ Gyeonggi-do ☐ Gangwon-do ☐ Chungcheong-do ☐ Gyeongsang-do
☐ Jeolla-do ☐ Jeju-do

5. What type of dental institution is yours?

☐ Hospital (e.g., University hospitals, General hospitals, Dental hospitals)
☐ Clinic

6. What is the average daily number of patients at your dental institution?

☐ 19 or fewer ☐ 20~29 ☐ 30~39 ☐ 40 or more

7. How many staff members (including dentists, dental hygienists, dental technicians, nursing assistants, etc.) are employed at your dental institution?

(e.g., 4 people, etc.) _____

8. Does your dental institution have an infection control personnel?

☐ Yes ☐ No

Section 2. Questions Regarding Infection Control Methods for 'Clinical Contact Surfaces'

9. Please select all methods for surface management of your dental institution's 'Bracket table'.



☐ Surface
barriers



*(When selecting this
option, the response to
Question 9-1.)*

9-1. Please select all timing for performing 'surface barriers'.

- ☐ After each patient
- ☐ Before the start of all treatments
- ☐ After the end of all treatments
- ☐ When contamination is visible
- ☐ After treatment of specific patients (e.g., those with severe bleeding, patients with blood-borne infectious diseases, etc.)
- ☐ Sometimes

☐ Disinfection



*(When selecting this
option, the response to
Question 9-2~4.)*

9-2. Please select all disinfection methods.

- ☐ Wipe with alcohol swabs, disinfectant wipes, or similar products.
- ☐ Spray the disinfectant.
- ☐ Spray the disinfectant, wipe with a towel, then spray again to finish.
- ☐ Don't know
- ☐ Other ()

9-3. Please select all disinfectant components.

- ☐ Sodium hypochlorite
- ☐ Alcohol
- ☐ Hydrogen peroxide
- ☐ Don't know
- ☐ Other ()

9-4. Please select all timing for performing disinfection.

- ☐ After each patient
- ☐ Before the start of all treatments
- ☐ After the end of all treatments
- ☐ When contamination is visible
- ☐ After treatment of specific patients (e.g., those with severe bleeding, patients with blood-borne infectious diseases, etc.)
- ☐ Sometimes

☐ Cleaning

⇒

(When selecting this option, the response to Question 9-5.)

9-5. Please select all timing for performing cleaning.

- ☐ After each patient
- ☐ Before the start of all treatments
- ☐ After the end of all treatments
- ☐ When contamination is visible
- ☐ After treatment of specific patients (e.g., those with severe bleeding, patients with blood-borne infectious diseases, etc.)
- ☐ Sometimes

☐ Not performed surface control

☐ Other ()

9-6. Why do you perform surface management using the above method?

(Multiple selections allowed)

- ☐ Based on information obtained from external organizations
- ☐ According to the institution's internal guidelines
- ☐ To reduce costs
- ☐ To save time
- ☐ Other ()

10. Please select all methods for surface management of your dental institution's 'Unit chair control switch'.



- ☐ Surface barriers ⇒ *When selecting this option, the response to Question 10-1 (Same as Question 9-1.).*
- ☐ Disinfection ⇒ *When selecting this option, the response to Question 10-2~4 (Same as Question 9-2~4.).*
- ☐ Cleaning ⇒ *When selecting this option, the response to Question 10-5 (Same as Question 9-5.).*
- ☐ Not performed surface control
- ☐ Other ()

10-6. Why do you perform surface management using the above method?

(Multiple selections allowed)

- ☐ Based on information obtained from external organizations
- ☐ According to the institution's internal guidelines
- ☐ To reduce costs

- ☐ To save time
- ☐ Other ()

11. Please select all methods for surface management of your dental institution's 'Light handle'.



- ☐ Surface barriers ⇒ When selecting this option, the response to Question 11-1 (Same as Question 9-1.).
- ☐ Disinfection ⇒ When selecting this option, the response to Question 11-2~4 (Same as Question 9-2~4.).
- ☐ Cleaning ⇒ When selecting this option, the response to Question 11-5 (Same as Question 9-5.).
- ☐ Not performed surface control
- ☐ Other ()

11-6. Why do you perform surface management using the above method?

(Multiple selections allowed)

- ☐ Based on information obtained from external organizations
- ☐ According to the institution's internal guidelines
- ☐ To reduce costs
- ☐ To save time
- ☐ Other ()

12. Please select all methods for surface management of your dental institution's 'Unit chair headrest'.



- ☐ Surface barriers ⇒ When selecting this option, the response to Question 12-1 (Same as Question 9-1.).
- ☐ Disinfection ⇒ When selecting this option, the response to Question 12-2~4 (Same as Question 9-2~4.).

- ☐ Cleaning ⇒ *When selecting this option, the response to Question 12-5 (Same as Question 9-5).*
- ☐ Not performed surface control
- ☐ Other ()

12-6. Why do you perform surface management using the above method?

(Multiple selections allowed)

- ☐ Based on information obtained from external organizations
- ☐ According to the institution's internal guidelines
- ☐ To reduce costs
- ☐ To save time
- ☐ Other ()

13. Please select all methods for surface management of your dental institution's 'Drawer handle'.



- ☐ Surface barriers ⇒ *When selecting this option, the response to Question 13-1 (Same as Question 9-1).*
- ☐ Disinfection ⇒ *When selecting this option, the response to Question 13-2~4 (Same as Question 9-2~4).*
- ☐ Cleaning ⇒ *When selecting this option, the response to Question 13-5 (Same as Question 9-5).*
- ☐ Not performed surface control
- ☐ Other ()

13-6. Why do you perform surface management using the above method?

(Multiple selections allowed)

- ☐ Based on information obtained from external organizations
- ☐ According to the institution's internal guidelines
- ☐ To reduce costs
- ☐ To save time
- ☐ Other ()

14. Please select all methods for surface management of your dental institution's 'Light-curing unit head'.



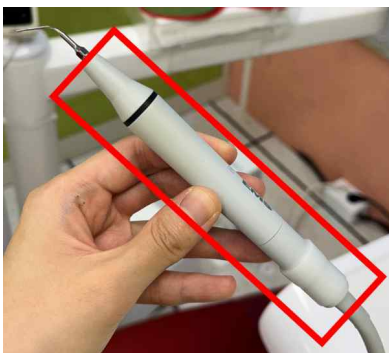
- ☐ Surface barriers ⇒ When selecting this option, the response to Question 14-1 (Same as Question 9-1.).
- ☐ Disinfection ⇒ When selecting this option, the response to Question 14-2~4 (Same as Question 9-2~4.).
- ☐ Cleaning ⇒ When selecting this option, the response to Question 14-5 (Same as Question 9-5.).
- ☐ Not performed surface control
- ☐ Other ()

14-6. Why do you perform surface management using the above method?

(Multiple selections allowed)

- ☐ Based on information obtained from external organizations
- ☐ According to the institution's internal guidelines
- ☐ To reduce costs
- ☐ To save time
- ☐ Other ()

15. Please select all methods for surface management of your dental institution's 'Scaler body'.



- ☐ Surface barriers ⇒ When selecting this option, the response to Question 15-1 (Same as Question 9-1.).
- ☐ Disinfection ⇒ When selecting this option, the response to Question 15-2~4 (Same as Question 9-2~4.).
- ☐ Cleaning ⇒ When selecting this option, the response to Question 15-5 (Same as Question 9-5.).
- ☐ Not performed surface control
- ☐ Other ()

15-6. Why do you perform surface management using the above method?

(Multiple selections allowed)

- ☐ Based on information obtained from external organizations

- ☐ According to the institution's internal guidelines
- ☐ To reduce costs
- ☐ To save time
- ☐ Other ()

16. Please select all methods for surface management of your dental institution's '3-way syringe handle'.



- ☐ Surface barriers ⇒ When selecting this option, the response to Question 16-1 (Same as Question 9-1.).
- ☐ Disinfection ⇒ When selecting this option, the response to Question 16-2~4 (Same as Question 9-2~4.).
- ☐ Cleaning ⇒ When selecting this option, the response to Question 16-5 (Same as Question 9-5.).
- ☐ Not performed surface control
- ☐ Other ()

16-6. Why do you perform surface management using the above method?

(Multiple selections allowed)

- ☐ Based on information obtained from external organizations
- ☐ According to the institution's internal guidelines
- ☐ To reduce costs
- ☐ To save time
- ☐ Other ()

17. Please select all methods for surface management of your dental institution's 'Computer mouse'.



- ☐ Surface barriers ⇒ When selecting this option, the response to Question 17-1 (Same as Question 9-1.).
- ☐ Disinfection ⇒ When selecting this option, the response to Question 17-2~4 (Same as Question 9-2~4.).

- ☐ Cleaning ⇒ *When selecting this option, the response to Question 17-5 (Same as Question 9-5).*
- ☐ Not performed surface control
- ☐ Other ()

17-6. Why do you perform surface management using the above method?

(Multiple selections allowed)

- ☐ Based on information obtained from external organizations
- ☐ According to the institution's internal guidelines
- ☐ To reduce costs
- ☐ To save time
- ☐ Other ()

Section 3. Questions Regarding Infection Control Methods for 'Housekeeping Surfaces'

18. Please select all methods for surface management of your dental institution's 'Wall'.

- ☐ Surface barriers ⇒ *When selecting this option, the response to Question 18-1 (Same as Question 9-1).*
- ☐ Disinfection ⇒ *When selecting this option, the response to Question 18-2~4 (Same as Question 9-2~4).*
- ☐ Cleaning ⇒ *When selecting this option, the response to Question 18-5 (Same as Question 9-5).*
- ☐ Not performed surface control
- ☐ Other ()

18-6. Why do you perform surface management using the above method?

(Multiple selections allowed)

- ☐ Based on information obtained from external organizations
- ☐ According to the institution's internal guidelines
- ☐ To reduce costs
- ☐ To save time
- ☐ Other ()

19. Please select all methods for surface management of your dental institution's 'Floor'.

- ☐ Surface barriers ⇒ *When selecting this option, the response to Question 19-1 (Same as Question 9-1).*
- ☐ Disinfection ⇒ *When selecting this option, the response to Question 19-2~4 (Same as Question 9-2~4).*
- ☐ Cleaning ⇒ *When selecting this option, the response to Question 19-5 (Same as Question 9-5).*
- ☐ Not performed surface control
- ☐ Other ()

19-6. Why do you perform surface management using the above method?

(Multiple selections allowed)

- ☐ Based on information obtained from external organizations
- ☐ According to the institution's internal guidelines
- ☐ To reduce costs
- ☐ To save time
- ☐ Other ()

20. Please select all methods for surface management of your dental institution's 'Window'.

- ☐ Surface barriers ⇒ *When selecting this option, the response to Question 20-1 (Same as Question 9-1.).*
- ☐ Disinfection ⇒ *When selecting this option, the response to Question 20-2~4 (Same as Question 9-2~4.).*
- ☐ Cleaning ⇒ *When selecting this option, the response to Question 20-5 (Same as Question 9-5.).*
- ☐ Not performed surface control
- ☐ Other ()

20-6. Why do you perform surface management using the above method?

(Multiple selections allowed)

- ☐ Based on information obtained from external organizations
- ☐ According to the institution's internal guidelines
- ☐ To reduce costs
- ☐ To save time
- ☐ Other ()