INFECTION CONTROL
PART 2
QUESTIONS & ANSWERS
ABOUT COVID19

DentaQuest Partnership Continuing Education Webinar
April 15 & 21, 2020

DOI: 10.35565/DQP.2020.3004
Learning Objectives

By the end of this webinar, participants will be able to:

1. Understand the current ADA and CDC dental guidelines on infection control.
2. Identify current best practices for PPE & disinfection for dental treatment for the short and long term.
Housekeeping

- All lines will remain muted to avoid background noise.
- A copy of the slides and a link to the recording will be shared after the webinar concludes.
- In order to receive CE credit you must fill out the webinar evaluation, which will be shared at the end of the presentation. The evaluation must be completed by **EOD Friday, April 24** to receive CE credit.

*Full disclosures available upon request*
Q&A Logistics

After the presentations we hope to have some time for Q&A

We will be monitoring the chat box throughout the entire presentation and we will do our best to answer all questions.

- Type your question in the chat box and make sure you send it to all panelist.
ICYMI – Infection Control & Preventive Care During A National Health Crisis (Part 1)

It is now available on our website!

https://www.dentaquestpartnership.org/learn/online-learning-center/webinars
INFECTION CONTROL PART 2:
Questions & Answers About COVID-19

Presenters:

- Nancy Dewhirst, RDH, BS
  Dental Consultant & Educator,
  Organization for Safety Asepsis and Prevention (OSAP)

- Diane D Romaine, DMD, MM, MAGD
  President,
  Maryland State Dental Association Foundation

- Julie Frantsve-Hawley, Ph.D., CAE
  Director, Analytics & Evaluation,
  DentaQuest Partnership for Oral Health Advancement
Topics

COVID 19 Pathogenesis
Personal Protective Equipment
Dental Treatment
Engineering and Environmental Controls
Opening Our Minds for the Future
1. Can you elaborate on the risk of dental healthcare workers for exposure to COVID 19?
The Workers Who Face the Greatest Coronavirus Risk
Personal Protective Equipment

1. I’ve heard that KN95 masks are the same as N95 masks. Is this true? Are there other comparable masks?

2. How does one get training on how to use the N95 masks appropriately?
Interim Mask and Face Shield Guidelines

These recommendations align with existing CDC recommendations for patients without signs/symptoms of COVID-19.

<table>
<thead>
<tr>
<th>Mask Type – With Goggles or Face Shield (Understanding Mask Types)</th>
<th>Level of Risk*** to DHCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>N95</td>
<td>Low</td>
</tr>
<tr>
<td>N95 EQUIVALENT MASK* KN/KP95, PFF2, P2, DS/DL2, KOREAN SPECIAL 1ST</td>
<td>Low</td>
</tr>
<tr>
<td>Surgical Mask**</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

*The FDA has authorized the use of masks equivalent to the N95 during the pandemic period. Manufacturers approved can be found here: [https://www.fda.gov/media/136663/download](https://www.fda.gov/media/136663/download)
Select a type of respirator to see all approved models:

**N95** – Filters at least 95% of airborne particles. Not resistant to oil.

(N95 Manufacturers Index: 3M  A  B  C  D  E  F  G  H  I  J  K  L  M  N  O  P  Q  R  S  T  U  V  W  X  Y  Z)

**Surgical N95** – A NIOSH-approved N95 respirator that has also been cleared by the Food and Drug Administration (FDA) as a surgical mask.

**N99** – Filters at least 99% of airborne particles. Not resistant to oil.

**N100** – Filters at least 99.97% of airborne particles. Not resistant to oil.

**R95** – Filters at least 95% of airborne particles. Somewhat resistant to oil.

**P95** – Filters at least 95% of airborne particles. Strongly resistant to oil.

**P99** – Filters at least 99% of airborne particles. Strongly resistant to oil.

**P100** – Filters at least 99.97% of airborne particles. Strongly resistant to oil.

CDC Contingency & crisis optimization options: respirators

Interim recs: discard N-95 after 1 patient

NIH study 4/15/20 recommends decontamination with Vaporized hydrogen peroxide which enables 3 uses or UV plus 70C for 1 hour which enables 2 uses.

FDA lists approved products from other countries

• AVOID counterfeit devices

[Image of real and fake respirators]
NEW CRISIS N-95 MASK DISINFECTION TECHNOLOGY

• Concentrated hydrogen peroxide vapor in chamber – 2.5 hours
• Can process 80,000 masks / day
• Masks can be processed 20 times without degrading

Battelle Mem. Institute
1. I’ve heard that KN95 masks are the same as N95 masks. Is this true? Are there other comparable masks?

2. How does one get training on how to use the N95 masks appropriately?

3. What is the recommended sequence for Donning Personal Protective Equipment (PPE)?

4. Could you talk a little on the importance of putting clean gloves on to remove facemask and when putting the facemasks back on for reuse? This is important as the virus could be trapped on the filter of the facemask?
SEQUENCE FOR DONNING PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required; e.g., Standard and Contact, Droplet or Airborne Infection Isolation.

1. GOWN
   - Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
   - Fasten in back of neck and waist

2. MASK OR RESPIRATOR
   - Secure ties or elastic bands at middle of head and neck
   - Fit flexible band to nose bridge
   - Fit snug to face and below chin
   - Fit-check respirator

3. GOGGLES OR FACE SHIELD
   - Place over face and eyes and adjust to fit

4. GLOVES
   - Extend to cover wrist of isolation gown

SECUENCIA PARA PONERSE EL EQUIPO DE PROTECCIÓN PERSONAL (PPE)

El tipo de PPE que se debe utilizar depende del nivel de precaución que sea necesario; por ejemplo, equipo Estándar y de Contacto o de Aislamiento de infecciones transportadas por gotas o por aire.

1. BATA
   - Cubra con la bata todo el torso desde el cuello hasta las rodillas, los brazos hasta la muñeca y círculos alrededor de la espalda
   - Ajuste por detrás a la altura del cuello y la cintura

2. MÁSCARA O RESPIRADOR
   - Asegúrese de los cordones o la banda elástica en la mitad de la cabeza y en el cuello
   - Ajuste la banda flexible en el puente de la nariz
   - Acomódelas en la cara y por debajo del mentón
   - Verifique el ajuste del respirador

3. GAFAS PROTECTORAS O CARETAS
   - Colóquelas sobre la cara y los ojos y ajustelas

4. GUANTES
   - Extienda los guantes para el puño en la bata de aislamiento

USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Keep hands away from face
- Limit surfaces touched
- Change gloves when torn or heavily contaminated
- Perform hand hygiene

https://www.cdc.gov/HAI/pdfs/ppe/ppeposter1322.pdf
SEQUENCE FOR REMOVING PERSONAL PROTECTIVE EQUIPMENT (PPE)

Except for respirator, remove PPE at doorway or in anteroom. Remove respirator after leaving patient room and closing door.

1. GLOVES
- Outside of gloves is contaminated!
- Grasp outside of glove with opposite gloved hand; peel off
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist
- Peel glove off over first glove
- Discard gloves in waste container

2. GOGGLES OR FACE SHIELD
- Outside of goggles or face shield is contaminated!
- To remove, handle by head band or ear pieces
- Place in designated receptacle for reprocessing or in waste container

3. GOWN
- Gown front and sleeves are contaminated!
- Unfasten ties
- Pull away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard

4. MASK OR RESPIRATOR
- Front of mask/respirator is contaminated — DO NOT TOUCH
- Grasp bottom, then top ties or elastics and remove
- Discard in waste container

PERFORM HAND HYGIENE IMMEDIATELY AFTER REMOVING ALL PPE

SECUENCIA PARA QUITARSE EL EQUIPO DE PROTECCIÓN PERSONAL (PPE)

Con la excepción del respirador, quitese el PPE en la entrada de la puerta o en la antecámara. Quitese el respirador después de salir de la habitación del paciente y de cerrar la puerta.

1. GUANTES
- ¡El exterior de los guantes está contaminado!
- Agarre la parte exterior del guante con la mano opuesta en la que todavía tiene puesto el guante y quitéselo
- Sostenga el guante que se quitó con la mano enguantada
- Deslice los dedos de la mano sin guante por debajo del otro guante que no se ha quitado todavía a la altura de la muñeca
- Quite el guante de manera que acabe cubriendo el primer guante
- Arroje los guantes en el recipiente de desechos

2. GAFAS PROTECTORAS O CARETA
- ¡El exterior de las gafas protectoras o de la careta está contaminado!
- Para quitárselas, tómelas por la parte de la banda de la cabeza o de las piezas de las orejas
- Colóquelas en el recipiente designado para reprocesar materiales o de materiales de desecho

3. BATA
- ¡La parte delantera de la bata y las mangas están contaminadas!
- Desate los cordones
- Tocando solamente el interior de la bata, pásela por encima del cuello y de los hombros
- Voltee la bata al revés
- Dobléla o entóntela y desechela

4. MÁSCARA O RESPIRADOR
- La parte delantera de la máscara o respirador está contaminada — ¡NO LA TOQUE!
- Primero agarre la parte de abajo, luego las cordeles o banda elástica de arriba y por último quítelas la máscara o respirador
- Arroje el en el recipiente de desechos
Dental Treatment

1. It seems that the CDC interim guidelines for dental settings is recommending lower infection control standards for dentistry. Is this putting dental providers at risk?
CDC issued possible crisis options if needed
Do NOT confuse with basic Interim COVID-19 recommendations

Strategies to Optimize the Supply of PPE if supplies are low or missing

CDC and ADA guidelines say “if PPE is not available, including surgical masks, do not proceed with any dental procedure”

Interim Recommendations: PPE to treat Asymptomatic patients

If respirators are NOT AVAILABLE:

FDA cleared surgical mask + full-face shield = minimal acceptable PPE

• Prioritize ASTM level 3 + face shields
• Remove & discard mask after exiting operatory
• Change mask sooner if compromised

If masks & shield not available DO NOT PERFORM EMERGENCY CARE

Refer pt.
Dental Treatment

1. It seems that the CDC interim guidelines for dental settings is recommending lower infection control standards for dentistry. Is this putting dental providers at risk?

2. Do you think that our practices should implement taking temperatures on all patients? And would this be short-term, or a permanent practice?
Algorithm 2

1. It seems that the CDC interim guidelines for dental settings is recommending lower infection control standards for dentistry. Is this putting dental providers at risk?

2. Do you think that our practice should implement taking temperatures on all patients? And would this be short-term, or a permanent practice?

3. There is much discussion about pre-rinse, including chlorhexidine, Listerine and 1.5% hydrogen peroxide. Which is best? Why? And how long should they rinse?
ADA interim covid-19 recs:
Pre-procedural rinse:
  • 1-1.5% hydrogen peroxide
  • 0.2% povidone
SARS CoV-2 = sensitive to oxidizing products

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4. Are rubber dams, and high speed suction effective in managing aerosols?

5. What are they key take-aways from the ADA and CDC guidance?

Engineering and Environmental Controls

1. Do I need to disinfect pens used at the front desk? If so, what are the right disinfectants that should be used?

2. Which is more effective and cost-effective, UV disinfection or HEPA filter systems for operatories? Do HEPA filters remove the virus?

3. What are current recommendations regarding reprocessing respirators? Would spraying Lysol on a N95 mask damage or make it unusable? Can UV-C irradiation also be used? Does repeat disinfection decrease the effectiveness of the mask?

4. How have your patients responded to care during this time period, are they questioning you on infection control as they come in for emergency care?

5. I get the point of spacing outpatient appointments in each operatory, but when one has open bays, not private rooms, how beneficial can this really be?
Operatory
Asepsis

2 choices:
cover it or disinfect it
Environmental asepsis (unseen droplets)

EPA intermediate level disinfectant - operatories

Extend frequent disinfection protocol - all touch / transfer surfaces

EPA list of SARS CoV-2 disinfectants

https://www.epa.gov/newsreleases/epa-expands-covid-19-disinfectant-list
Pesticide Registration

List N: Disinfectants for Use Against SARS-CoV-2

All products on this list meet EPA’s criteria for use against SARS-CoV-2, the virus that causes COVID-19.

https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2
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Stand-alone units primarily utilize HEPA filtration that filters viruses.

Calculate room air volume to set air exchange rates.

UV air treatment may be combined.

Continue other strategies:

• Optimize direct suction, evacuation protocol
• Single operatories, spaced apart
• Vacate room after procedure – air exchange
• Open windows
• Increase HVAC settings
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3. How have your patients responded to care during this time period, are they questioning you on infection control as they come in for emergency care?
1. At what point in time can we feel comfortable resuming "normal" dentistry?
How and when do we Return to “normal”? City by city, Hospitals can safely treat patients w/ crisis standards of care. Area is over case surge. Testing is available for symptomatic & recovered pts.

- Viral & serological tests
- State can contact, trace cases (cell phone tracking?)

Sustained case reduction > 14 days

Vaccines / effective drugs.

State Mandates and Recommendations on COVID-19
This page was updated on April 20, 2020

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<th>States with Dentistry Essential</th>
<th>States with Dentistry Essential - Emergency Only</th>
<th>States with No Mandate for Dentistry</th>
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We're all in this together!
QUESTIONS?
Webinar Evaluation

https://www.dentaquestpartnership.org/node/196671

*Must complete by **EOD Friday, April 24** in order to receive CE credit

**Online Learning Modules Now Available!**

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