PREVENTING THE TRANSMISSION OF COVID-19 IN THE HOME

Presented by: Mary McGoldrick, MS, RN, CRNI®
Home Care and Hospice Consultant
Home Health Systems, Inc.
LEARNING OBJECTIVES

At the conclusion of this webinar, the participant will be able to:

- Describe infection prevention and control strategies to prevent the transmission of SARS-CoV-2 in the home.
- Recognize common infection prevention and control breaches during care to patients in the home.
- Describe best practice recommendations for managing PPE when supplies are limited.
- More effectively prepare for caring for a patient suspected or confirmed of having COVID-19 in the home.
COVID-19: MODE OF TRANSMISSION AND SYMPTOMS

- Mode of transmission
- Symptoms can include:
  - Fever
  - Cough
  - Shortness of breath
- Time of onset to symptoms: 2 - 14 days
COVID-19: PREPARING FOR THE HOME VISIT

- Pre-visit phone call
- Plan:
  - Equipment management and supplies
  - Personal protective equipment (PPE)
    - Disposal
    - Availability
# COVID-19: PPE USE AND OPTIONS FOR RE-USE IN THE HOME

<table>
<thead>
<tr>
<th>PPE</th>
<th>Plan A</th>
<th>Plan B</th>
<th>Plan C (Worst Case Scenario)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N95 Respirator</td>
<td>▪ Routine use</td>
<td>▪ Face mask</td>
<td>▪ Re-use</td>
</tr>
<tr>
<td></td>
<td>▪ Single use</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Aerosol-generating procedures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
COVID-19: AEROSOL-GENERATING PROCEDURES

- Examples of aerosol-generating or cough-inducing procedures
- Personal protective equipment
- Limit individuals present during aerosol-generating procedure
- Clean and disinfect patient care area promptly after performing


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### COVID-19 PPE Use and Options for Re-use in the Home

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<tbody>
<tr>
<td>Face Mask</td>
<td>Alternative to N95 respirator</td>
<td>Re-use</td>
<td>Reusable, washable</td>
</tr>
<tr>
<td></td>
<td>Single-use</td>
<td></td>
<td>Homemade</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Face shield only</td>
</tr>
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COVID-19: PPE USE AND OPTIONS FOR RE-USE IN THE HOME

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<tr>
<td>Eye protection</td>
<td>Single-use</td>
<td>Re-use</td>
<td>Homemade</td>
</tr>
<tr>
<td>Gown</td>
<td>Disposable</td>
<td>Cloth</td>
<td>Re-use</td>
</tr>
<tr>
<td>Gloves</td>
<td>Single-use</td>
<td>Re-use</td>
<td>Alternative</td>
</tr>
</tbody>
</table>
PPE REMOVAL: PREVENTING SELF-CONTAMINATION

- Doffing errors
- Staff are required to know:
  - How to recognize tasks that may involve exposure to blood or other potentially infectious materials and when PPE must be used
  - What kind of PPE is to be used
  - How to don PPE, adjust it, wear it, take it off and dispose of it
  - The limitations of the PPE
  - How to care for the PPE, maintain it, and how long it can be used

COVID-19: WHEN TO DISCONTINUE TRANSMISSION-BASED ISOLATION PRECAUTIONS

- When COVID-19 testing is available:
  - Resolution of fever without the use of fever-reducing medications; and
  - Improvement in respiratory symptoms (e.g., cough, shortness of breath); and
  - Negative test results from at least two consecutive nasopharyngeal swab specimens collected ≥24 hours apart (i.e., total of two negative specimens).
- When COVID-19 testing is not available:
  - At least 3 days (72 hours) have passed since recovery (i.e., defined as resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms [e.g., cough, shortness of breath]); and
  - At least 7 days have passed since symptoms first appeared.
COVID-19: PPE USE AND OPTIONS FOR RE-USE IN THE HOME

<table>
<thead>
<tr>
<th>Surface</th>
<th>SARS-CoV-2 Survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerosols</td>
<td>3 Hours</td>
</tr>
<tr>
<td>Plastic</td>
<td>2-3 Days</td>
</tr>
<tr>
<td>Stainless steel</td>
<td>2-3 Days</td>
</tr>
<tr>
<td>Copper</td>
<td>4 Hours</td>
</tr>
<tr>
<td>Cardboard</td>
<td>24 Hours</td>
</tr>
</tbody>
</table>

INDICATIONS FOR PERFORMING HAND HYGIENE

- Before having direct contact with patients
- Before donning PPE
- After contact with a patient
- After contact with patient’s immediate environment
- After contact with blood body fluids, or contaminated surfaces
- After removing PPE
HAND HYGIENE TECHNIQUE:
COMMON COMPLIANCE ISSUES

- Soap and water:
  - Rub hands together vigorously for a minimum of 20 seconds covering all surfaces
  - Use towel to turn off faucet/tap
- Alcohol-based hand hygiene product:
  - Cover all surfaces of hands & fingers, until hands are dry
- WHO hand hygiene technique
HAND HYGIENE PRODUCT USAGE AND STORAGE: COMMON COMPLIANCE ISSUES

- Hand lotion or cream access
- Partially empty container
- Product used
- Alcohol-based hand hygiene:
  - Storage location
  - Expiration dating
  - When not to use

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“OTHER” HAND HYGIENE
COMMON COMPLIANCE ISSUES

- Rings and jewelry
- Nail polish
- Artificial nails
- Nail tip length
- Skin condition
- Bandages and splints
THE HOME CARE NURSING BAG

- Unique aspect of care in the home
- Noncritical item
- Fomite for potentially pathogenic organisms
THE NURSING BAG AS A FOMITE FOR PATHOGENIC MICROORGANISMS

- Outside nurses’ bags:
  - 83.6% positive for human pathogens; 15.9% MDROs
- Inside nurses’ bag:
  - 48.4% positive for human pathogens; 6.3% MDROs
- Patient care equipment inside nurses’ bags:
  - 43.7% positive for human pathogens; 5.6% MDROs

“BAG TECHNIQUE”: BEST PRACTICES FOR COVID-19

- When not to bring into the home
- Hand hygiene
- Bag placement
- Routine sanitizing
- Management of equipment and supplies

COVID-19 BAG CONTENTS

- Personal protective equipment
- Disinfectant wipes
- Surface barriers
- Paper bags
- Hand hygiene supplies
- Supplementary items

DISINFECTANTS FOR USE AGAINST SARS-COV-2

- What equipment to disinfect with product from EPA “List N”
- Contact time
- Manufacturer’s instructions for use:
  - Personal protective equipment
  - Storage
EPA REGISTERED DISINFECTANTS EFFECTIVE AGAINST *MYCOBACTERIUM TUBERCULOSIS* (TB)

- What equipment to disinfect with product from EPA “List B”:
  - [https://www.epa.gov/sites/production/files/2020-03/documents/20200302listb_0.pdf](https://www.epa.gov/sites/production/files/2020-03/documents/20200302listb_0.pdf)
- Manufacturer’s instructions for use:
  - Personal protective equipment
  - Contact time
CLEANING AND DISINFECTING NONCRITICAL EQUIPMENT

- Vital sign equipment
- Point of care testing equipment
- Electronic equipment


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ELECTRONIC VISIT VERIFICATION

- Patient’s skin contamination:
  - Tablet/laptop’s mousepad/mobile phone surfaces not cleaned and disinfected prior to direct contact by the patient
  - Stylet not cleaned and disinfected prior to the patient’s use
  - Hand hygiene not performed after contact

- Equipment contamination:
  - Mobile device placed directly on a surface in the home and no cleaning and disinfecting after use

HOME CARE DISINFECTION FOR SARS-COV-2: COMMON COMPLIANCE ISSUES

- Repackaging
- Single vs. roll
- Antiseptic vs. disinfectant
- Towelette size vs. surface area
- Skin contact
- First aid


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IN-HOME DIAGNOSTIC RESPIRATORY SPECIMEN COLLECTION

- Specimen collection location
- Personal protective equipment
- Individuals present during collection
HOME VISIT WRAP-UP

- Equipment management and supplies
- Personal protective equipment
STAFF ASSIGNMENT: KNOWN OR SUSPECTED COVID-19 PATIENT

- Essential home visits
- Limit general staff exposure
- Staff exclusion
- “Recovered” staff
- Scheduling of home visits
STAFF EXPOSURE TO COVID-19 PATIENT: RISK ASSESSMENT

<table>
<thead>
<tr>
<th>High-risk Exposure</th>
<th>Medium-risk Exposure</th>
<th>Low-risk Exposure</th>
</tr>
</thead>
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<tr>
<td>• Prolonged contact with patient who was not wearing a mask and staff was not using any PPE or not wearing a face mask/N95 respirator</td>
<td>▪ Prolonged contact with patient who was wearing a mask and staff was not using any PPE</td>
<td></td>
</tr>
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<tr>
<td>• Prolonged contact with patient who was not wearing a mask and staff was not using eye protection</td>
<td>▪ Brief interaction with patient and staff not wearing all recommended PPE, regardless of whether patient was wearing a facemask are considered low-risk</td>
<td></td>
</tr>
<tr>
<td>▪ Staff not wearing an N95 respirator during an aerosol-generating procedure</td>
<td>▪ Prolonged contact with patient who was wearing a mask and staff was not wearing:</td>
<td></td>
</tr>
<tr>
<td>▪ Prolonged contact with patient who was wearing a mask and staff was not using any PPE or not wearing a face mask/N95 respirator</td>
<td>▪ Eye protection, gown, and gloves</td>
<td></td>
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<td>▪ Prolonged contact with patient who was not wearing a mask and staff was not using eye protection</td>
<td>▪ An N95 respirator and wearing a face mask, gown, gloves and eye protection</td>
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<td>▪ Brief interaction with patient and staff not wearing all recommended PPE, regardless of whether patient was wearing a facemask are considered low-risk</td>
<td>▪ Prolonged contact with patient who was not wearing:</td>
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## STAFF EXPOSURE TO COVID-19 PATIENT: RISK-EXPOSURE AND WORK ASSIGNMENT

<table>
<thead>
<tr>
<th>High- and Medium-risk Exposed Staff</th>
<th>Low-risk Exposed Staff</th>
<th>All Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Exclude from duty for 14 days after exposure; <strong>or</strong></td>
<td>• Do not exclude for duty</td>
<td>• Report recognized COVID-19 exposures</td>
</tr>
<tr>
<td>• When staffing limitations, allow asymptomatic staff who had exposure to a COVID-19 patient to continue to work; <strong>and</strong></td>
<td></td>
<td>• Regularly self-monitor or actively monitor for fever and symptoms of respiratory infection</td>
</tr>
<tr>
<td>• Consider asking staff to wear a face mask for 14 days after exposure when working (and PPE is available)</td>
<td></td>
<td>• Results for “exposed staff” reported and monitored by Clinical Manager</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Not report to work when ill</td>
</tr>
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### SUSPECTED OR CONFIRMED COVID-19 POSITIVE STAFF: RETURN TO WORK

**COVID-19 Testing is Available**

- Resolution of fever without the use of fever-reducing medications; and
- Improvement in respiratory symptoms (e.g., cough, shortness of breath); and
- Negative test results from at least two consecutive nasopharyngeal swab specimens collected ≥24 hours apart (i.e., total of 2 negative specimens).

**COVID-19 Testing is Not Available**

- At least 3 days (72 hours) have passed since recovery (i.e., defined as resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms [e.g., cough, shortness of breath]); and
- At least 7 days have passed since symptoms first appeared.
WORK RESTRICTIONS AND INFECTION CONTROL STRATEGIES AFTER RETURNING TO WORK

- Wear a facemask at all times while in the office, IPU, or in the home until all symptoms are completely resolved or until 14 days after illness onset, whichever is longer
- Be restricted from contact with severely immunocompromised patients until 14 days after illness onset
- Adhere to hand hygiene, respiratory hygiene, and cough etiquette
- Self-monitor for fever and respiratory symptoms
- Seek re-evaluation if symptoms recur or worsen
SUMMARY

- Infection prevention and control strategies to prevent the transmission of SARS-CoV-2 in the home.
- Common infection prevention and control breaches during care to patients in the home.
- Best practice recommendations for managing PPE when supplies are limited.
- Preparing for caring for a patient suspected or confirmed of having COVID-19 in the home.
QUESTIONS?

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