

# ACT-HCP Study

Assessing COVID-19 Transmission to HealthCare Personnel (the ACT-HCP Study) Survey Purpose: Identify exposures associated with higher risk of SARS-CoV-2 transmission to healthcare workers. This survey was IRB-approved by Vanderbilt University Medical Center as exempt research.

This survey is anonymous.

We will NOT ask for your name, institution, or any information which might possibly identify you.

You may fill this survey out whether you have had COVID-19 or have remained healthy during this pandemic.

If you have had COVID-19, answer the questions regarding the 14-day time period before onset of your symptoms. If you have been healthy, answer questions with respect to your experiences during the last 14 days. Please forward this survey URL on to any colleagues you know who have been ill with COVID-19!

Questions: robert.j.lentz@vumc.org, henricolt@gmail.com, fabien.maldonado@vumc.org

[Link to full study protocol.](#)

Deadline for participation: Monday, May 4 (today!)

## Inclusion and COVID-19 Infection Status

I work in a healthcare or medical setting (I am a healthcare worker)  Yes  
 No

You have indicated that you are not a healthcare worker. This survey is for healthcare workers only.

If you work a healthcare setting in any capacity (hospital, clinic, medical office, or laboratory), select "YES" for the question above.

Have you been diagnosed with laboratory-confirmed COVID-19 at any point during the current pandemic?  Yes  
 No  
 No, but I have experienced an illness I suspect was COVID-19

Were you tested for COVID-19?  Yes, I tested negative  
 Yes, the result is still pending  
 No

Please consider bookmarking this survey URL and returning to fill out the survey once your COVID-19 test has returned. Laboratory-confirmation of COVID-19 will be important to know for the analysis of this study!

---

What symptoms did you experience?

- I was asymptomatic
  - Fever
  - Cough
  - Shortness of breath
  - Headache
  - Sore throat
  - Nasal / sinus congestion
  - Myalgias and/or arthralgias
  - Fatigue
  - Nausea and/or vomiting
  - Diarrhea
  - Abdominal pain
  - Chills
  - Anosmia
  - Other symptoms
- 

You have indicated that you suffered from an illness you suspect was COVID but that you had no symptoms. Please double-check your answers above!

---

What kind of laboratory test returned positive to definitively establish your diagnosis?

- PCR
- Serology / antibody test
- Both PCR and serology

The PCR test is the only widely-available test. It is usually run on a nasopharyngeal, nasal, or oropharyngeal swab. If you are not sure what kind of test you had, select "PCR."

(PCR = polymerase chain reaction)

---

Rate your illness severity

- Minimally symptomatic
  - Mild symptoms, akin to an average cold
  - Moderate symptoms, akin to an average flu
  - Moderately-severe symptoms, worse than the average flu
  - Severe or critical illness
- 

What is the maximal level of medical attention / care your illness required?

- Self-managed at home
  - Outpatient visit (in-person to via telemedicine)
  - ER / ED / A&E visit
  - Admission to a regular ward/floor
  - Admission to a step-down unit
  - Admission to intensive care unit
- 

Have you been to work at some point in the last 14 days?

- Yes
  - No
- 

You have indicated that you have not been to work in the last two weeks. The virus causing COVID-19 tends to have an incubation time within 2 weeks, and this is a study of healthcare-associated exposures. Please bookmark this URL and return to complete the survey within two weeks of working in a healthcare setting.

---

Today's Date

\_\_\_\_\_

---

Date of COVID-19 symptom onset

(approximate date is fine)

\_\_\_\_\_

---

Date of your positive COVID-19 PCR test?

(approximate date is fine)

---

Please complete the rest of this survey with respect to exposures and institutional policies in place during the 14 days PRIOR TO ONSET of your symptoms.

This 14 day time period is referred to as the "time period of interest" in the questions that follow.

---

Please complete the rest of this survey with respect to exposures and institutional policies in place during the 14 days PRIOR TO YOUR POSITIVE COVID-19 PCR test.

This 14 day time period is referred to as the "time period of interest" in the questions that follow.

---

You have indicated that you never had COVID-19 symptoms but have tested positive for COVID-19 by serologic testing. Because you never had symptoms, it is not possible to narrow down the window of when you might have been exposed to the virus. Please complete the rest of this survey with respect to exposures you experienced at work since January 2020 (ignore any reference to "14 day time period"). For the institutional policy questions, indicate the policies currently in place at your institution.

---

Please complete the rest of this survey with respect to exposures and institutional policies in place during the LAST 14 days.

This 14 day time period is referred to as the "time period of interest" in the questions that follow.

**Geography/setting**

World region

- Asia
- Africa
- Central America / Caribbean
- Europe
- Northern America
- South America
- Australia / Oceania

---

Country

- Afghanistan
- Albania
- Algeria
- American Samoa (USA)
- Andorra
- Angola
- Antigua and Barbuda
- Argentina
- Armenia
- Australia
- Austria
- Azerbaijan
- Bahamas
- Bahrain
- Bangladesh
- Barbados
- Belarus
- Belgium
- Belize
- Benin
- Bhutan
- Bolivia
- Bosnia and Herzegovina
- Botswana
- Brazil
- Brunei
- Bulgaria
- Burkina Faso
- Burundi
- Cabo Verde
- Cambodia
- Cameroon
- Canada
- Central African Republic
- Chad
- Chile
- Colombia
- Comoros
- Congo
- Costa Rica
- C??d'Ivoire
- Croatia
- Cuba
- Cyprus
- Czech Republic
- Denmark
- Djibouti
- Dominica
- Dominican Republic
- DR Congo
- Ecuador
- Egypt
- El Salvador
- Equatorial Guinea
- Eritrea
- Estonia
- Eswatini
- Ethiopia
- Fiji
- Finland
- France
- Gabon
- Gambia
- Georgia
- Germany
- Ghana
- Greece
- Greenland (Denmark)
- Grenada

- Guam (USA)
- Guatemala
- Guinea
- Guinea-Bissau
- Guyana
- Haiti
- Holy See
- Honduras
- Hong Kong (China)
- Hungary
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Israel
- Italy
- Jamaica
- Japan
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Kuwait
- Kyrgyzstan
- Laos
- Latvia
- Lebanon
- Lesotho
- Liberia
- Libya
- Liechtenstein
- Lithuania
- Luxembourg
- Madagascar
- Malawi
- Malaysia
- Maldives
- Mali
- Malta
- Marshall Islands
- Mauritania
- Mauritius
- Mexico
- Micronesia
- Moldova
- Monaco
- Mongolia
- Montenegro
- Morocco
- Mozambique
- Myanmar
- Namibia
- Nauru
- Nepal
- Netherlands
- New Zealand
- Nicaragua
- Niger
- Nigeria
- North Korea
- North Macedonia
- Norway
- Oman
- Pakistan
- Palau
- Panama
- Papua New Guinea
- Paraguay
- Peru

- Philippines
- Poland
- Portugal
- Puerto Rico (USA)
- Qatar
- Romania
- Russia
- Rwanda
- Saint Kitts & Nevis
- Saint Lucia
- Samoa
- San Marino
- Sao Tome & Principe
- Saudi Arabia
- Senegal
- Serbia
- Seychelles
- Sierra Leone
- Singapore
- Slovakia
- Slovenia
- Solomon Islands
- Somalia
- South Africa
- South Korea
- South Sudan
- Spain
- Sri Lanka
- St. Vincent & Grenadines
- State of Palestine
- Sudan
- Suriname
- Sweden
- Switzerland
- Syria
- Taiwan
- Tajikistan
- Tanzania
- Thailand
- Timor-Leste
- Togo
- Tonga
- Trinidad and Tobago
- Tunisia
- Turkey
- Turkmenistan
- Tuvalu
- U.S. Virgin Islands (USA)
- Uganda
- Ukraine
- United Arab Emirates
- United Kingdom
- United States
- Uruguay
- Uzbekistan
- Vanuatu
- Venezuela
- Vietnam
- Yemen
- Zambia
- Zimbabwe

---

State

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- Washington, D.C.
- West Virginia
- Wisconsin
- Wyoming

---

What type of hospital do you work in?

- Major/referral hospital - Academic
- Major/referral hospital - Private
- Major/referral hospital - Public/Government
- Community/local - Academic
- Community/local - Private
- Community/local - Public/Government
- Veteran's Affairs
- Military Hospital
- Outpatient clinic or procedure center
- Other or not applicable



**Your demographics**

Age

---

  
(years)

Gender

- Male  
 Female  
 Non-binary or other

What is your job / role in the healthcare setting?

- Clinician (physician, mid-level provider, other similar)  
 Nurse  
 Respiratory Therapist  
 Medical technician with patient contact (e.g. EKG tech, ultrasonographer)  
 Medical technician without patient contact (e.g. telemetry monitor)  
 Administrative support with patient contact  
 Administrative support without patient contact  
 Medical student or other clinical trainee  
 Environmental services or janitorial  
 Other

Other medical role:

---

Do you have any chronic medical conditions?

- Yes  
 No

Comorbidities: select all that apply

- RESPIRATORY ----
- Chronic obstructive pulmonary disease (COPD)
- Asthma
- Chronic hypoxemic respiratory failure (any etiology)
- Active tuberculosis infection
- CARDIOVASCULAR ----
- Hypertension (HTN)
- Heart failure (including reduced or preserved ejection fraction)
- Coronary Artery Disease (CAD) or Peripheral Arterial Disease (PAD)
- Cardiac arrhythmia
- ENDOCRINE ----
- Diabetes mellitus
- Obesity (body mass index >30)
- MALIGNANCY ----
- Solid tumor malignancy (current and/or active)
- Leukemia or lymphoma (current and/or active)
- NEUROLOGIC / COGNITIVE ----
- Dementia
- History of stroke / cerebrovascular accident (CVA)
- HEPATIC ----
- Chronic liver disease with cirrhosis
- Chronic liver disease without cirrhosis
- RENAL ----
- Chronic kidney disease
- End-stage renal disease on renal replacement therapy
- RHEUMATIC / CONNECTIVE TISSUE DISEASE ----
- Any rheumatic / connective tissue disease
- IMMUNOCOMPROMISE ----
- History of bone marrow / stem cell transplant
- History of solid organ transplant
- Human Immunodeficiency Virus (HIV) infection
- Immunocompromise related to drugs not for transplant
- Other immunocompromised state
- OTHER COMORBIDITIES ----
- Other notable comorbidity(ies)

Clarify "other" response; one comorbidity per line

Tobacco smoking status or smoking history

- Current smoker
- Former smoker
- Never smoker

Did you take any doses of hydroxychloroquine or chloroquine during the 14-day time interval of interest?

- Yes
- No

(for any reason/indication)

Reason for hydroxychloroquine/chloroquine use during the time interval of interest?

- Pre-exposure COVID prophylaxis
- Post-exposure COVID prophylaxis
- Chronic prescription for an existing medical condition
- Malaria prophylaxis
- Other

**RECENT PATIENT CONTACT****Reminder:**

**If you have had COVID-19, we are interested in the 14 days prior to symptom onset. If you have remained healthy throughout the pandemic, we are interested in the last 14 days. In the 14-day time period of interest, I had healthcare-related contact with:**

Patient(s) with laboratory-confirmed COVID-19  Yes  
 No

Patient(s) under investigation (PUI) for COVID-19  Yes  
 No

Definition:

A SARS-CoV-2 / COVID test was sent on the patient,  
and/or The patient is in precautionary COVID-related  
isolation per local policy

Patient(s) not suspected of having COVID-19  Yes  
 No

Approximately how many known COVID-19 patients did  
you care for over the time period of interest?

\_\_\_\_\_

Approximately how many patients under investigation  
for COVID-19 (PUIs) did you care for over the time  
period of interest?

\_\_\_\_\_

**MEDICAL WORKPLACE SETTING(S)****In the 14-day time period of interest, I worked (or saw patients) in the following areas:**

	Yes	No
Intensive care unit (ICU)	<input type="radio"/>	<input type="radio"/>
Step-down or intermediate-care unit	<input type="radio"/>	<input type="radio"/>
Regular hospital floor unit / ward	<input type="radio"/>	<input type="radio"/>
Dedicated COVID intensive care unit (ICU)	<input type="radio"/>	<input type="radio"/>
Dedicated non-ICU COVID unit or ward	<input type="radio"/>	<input type="radio"/>
Emergency Room / Department / Accident & Emergency	<input type="radio"/>	<input type="radio"/>
Out-of-hospital emergency medical care	<input type="radio"/>	<input type="radio"/>
Operative or procedure area	<input type="radio"/>	<input type="radio"/>
Outpatient clinic, testing area, or other ambulatory setting	<input type="radio"/>	<input type="radio"/>
Skilled nursing facility or long-term care facility	<input type="radio"/>	<input type="radio"/>
Dialysis unit	<input type="radio"/>	<input type="radio"/>
Home health / other care delivered in patient's home	<input type="radio"/>	<input type="radio"/>
Rehabilitation facility	<input type="radio"/>	<input type="radio"/>
Medical Laboratory area	<input type="radio"/>	<input type="radio"/>
Non-patient care area (e.g. radiology reading room)	<input type="radio"/>	<input type="radio"/>
Administrative area only	<input type="radio"/>	<input type="radio"/>

Did you have any close contact with a healthcare worker colleague at your institution during the 14-day time period of interest who was sick with COVID-19 symptoms or who was later diagnosed with COVID-19?

- Yes  
 No

**Exposures involving LABORATORY-CONFIRMED COVID-19 patients.**

**In the 14-day time period of interest, I was exposed to the following involving patients with confirmed COVID-19:**

	Yes	No
Inside a negative-pressure room with a patient	<input type="radio"/>	<input type="radio"/>
Inside a non-negative-pressure room with a patient	<input type="radio"/>	<input type="radio"/>
Within 3 feet of a patient	<input type="radio"/>	<input type="radio"/>
In the room with a patient continuously for 45 minutes or longer	<input type="radio"/>	<input type="radio"/>
In the room with a patient cumulatively for more than 1 hour over the course of a day or shift	<input type="radio"/>	<input type="radio"/>
Physical contact with a patient	<input type="radio"/>	<input type="radio"/>
Physical contact with a patient's personal items	<input type="radio"/>	<input type="radio"/>
Physical contact with respiratory secretions from a patient	<input type="radio"/>	<input type="radio"/>
Performed endotracheal intubation (I was the intubating proceduralist)	<input type="radio"/>	<input type="radio"/>
Present in the room during endotracheal intubation (but was not the proceduralist)	<input type="radio"/>	<input type="radio"/>
Performed endotracheal extubation (I pulled the tube)	<input type="radio"/>	<input type="radio"/>
Present in the room during endotracheal extubation (but did not pull the tube myself)	<input type="radio"/>	<input type="radio"/>
Performed open suctioning of secretions or body fluid of a patient	<input type="radio"/>	<input type="radio"/>
Performed closed suctioning of secretions or body fluid of a patient	<input type="radio"/>	<input type="radio"/>
Present in the room during nebulizer use	<input type="radio"/>	<input type="radio"/>

- |   |                       |                       |
|---|-----------------------|-----------------------|
| Been in the room with a patient on non-invasive positive pressure ventilation (e.g. CPAP, BPAP)   | <input type="radio"/> | <input type="radio"/> |
| Adjusted the mask of a patient on non-invasive positive pressure ventilation (e.g. CPAP, BPAP)  | <input type="radio"/> | <input type="radio"/> |
| Been in the room with a patient on high-flow nasal cannula  | <input type="radio"/> | <input type="radio"/> |
| Placed or adjusted a patient's high flow nasal cannula  | <input type="radio"/> | <input type="radio"/> |
| Performed bronchoscopy (I was the bronchoscopist)   | <input type="radio"/> | <input type="radio"/> |
| Present in the room during bronchoscopy (but was not the bronchoscopist)  | <input type="radio"/> | <input type="radio"/> |
| Performed rigid bronchoscopy (I was the bronchoscopist)   | <input type="radio"/> | <input type="radio"/> |
| Present in the room during rigid bronchoscopy (but was not the proceduralist)   | <input type="radio"/> | <input type="radio"/> |
| Performed open tracheotomy (I was the proceduralist)  | <input type="radio"/> | <input type="radio"/> |
| Present in the room during open tracheotomy (but was not the proceduralist)   | <input type="radio"/> | <input type="radio"/> |
| Performed percutaneous tracheostomy (I was the proceduralist)   | <input type="radio"/> | <input type="radio"/> |
| Present in the room during percutaneous tracheostomy (but was not the proceduralist)  | <input type="radio"/> | <input type="radio"/> |
| Participated in cardiopulmonary resuscitation of a patient who did not have an advanced airway (e.g. endotracheal tube) at some point during my participation | <input type="radio"/> | <input type="radio"/> |
| Participated in cardiopulmonary resuscitation of a patient who had an advanced airway in place throughout my participation in the event                       | <input type="radio"/> | <input type="radio"/> |

Recognized a failure or breach in my personal protective equipment (PPE) during an interaction with a patient or while removing PPE after an interaction



**HOW OFTEN did you experience the following exposures involving a LABORATORY-CONFIRMED COVID-19 patient during the 14-day time period of interest?**

Number of times you intubated a known COVID patient in the time interval of interest?

---

Number of times you were present for intubation of a known COVID patient (but not performed the intubation yourself) in the time interval of interest?

---

Number of times you extubated a known COVID patient in the time interval of interest?

---

Number of times you were present during extubation of a known COVID patient (but did not pull the tube yourself)?

---

Number of times you performed bronchoscopy in a known COVID patient in the time interval of interest?

---

Number of times you were present for bronchoscopy in a known COVID patient (but not been the bronchoscopist yourself) in the time interval of interest?

---

Number of times you performed a tracheotomy in a known COVID patient in the time interval of interest?

---

Number of times you were present for bronchoscopy in a known COVID patient (but not been the bronchoscopist yourself) in the time interval of interest?

---

Number of times you performed open suctioning of a known COVID patient in the time interval of interest?

---

Number of times you manipulated the CPAP or BPAP mask of a known COVID patient in the time interval of interest?

---

Number of times you participated in cardiopulmonary resuscitation of involving known COVID patients in the time interval of interest?

---



**INTUBATION TECHNIQUES**

**How often were the following techniques used during intubations of LABORATORY-CONFIRMED COVID-19 PATIENTS during the 14-day time period of interest?**

	Used in ALL intubations	Used in SOME intubations	Not used at all	I do not know
Intubation in negative pressure room	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rapid sequence intubation, no bag-mask before first attempt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bag-mask ventilation at some point after drugs pushed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Direct laryngoscopy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Video laryngoscopy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After ETT placement: bag-mask ventilation WITH a viral filter between ETT and ambu bag	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After ETT placement: bag-mask ventilation WITHOUT a viral filter between ETT and ambu bag	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After ETT placement: direct to ventilator without manual bagging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intubation box covering patient's head	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tarp, sheet, or other barrier over patient's head during intubation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I used (or was present during use) an intubation technique not listed above which was specifically employed to reduce risk of transmission to healthcare workers

- Yes  
 No

Specify other intubation technique details

---

**When caring for LABORATORY-CONFIRMED COVID-19 patients over the time period of interest:****What respiratory protection did you MOST FREQUENTLY utilize in the following circumstances?**

During AEROSOL GENERATING PROCEDURES?

Aerosol-generating procedures:

Intubation Extubation Open respiratory suctioning  
 Bronchoscopy Delivery of nebulized medication  
 Induced sputum collection Use of non-invasive  
 positive pressure ventilation Tracheotomy  
 Cardiopulmonary resuscitation

- No respiratory protection  
 Home-made or improvised mask (cloth, etc)  
 NEW medical/surgical mask  
 RE-USED medical/surgical mask  
 NEW disposable respirator mask (e.g. N95, FFP2, FFP3)  
 RE-USED disposable respirator mask (e.g. N95, FFP2, FFP3)  
 Powered Air Purifying Respirator (PAPR)  
 Re-usable elastomeric respirator  
 Other respirator  
 Other

Specify other respiratory protection: \_\_\_\_\_

During direct patient contact? (when aerosol generating procedures were NOT being performed)

- No respiratory protection  
 Home-made or improvised mask (cloth, etc)  
 NEW medical/surgical mask  
 RE-USED medical/surgical mask  
 NEW disposable respirator mask (e.g. N95, FFP2, FFP3)  
 RE-USED disposable respirator mask (e.g. N95, FFP2, FFP3)  
 Powered Air Purifying Respirator (PAPR)  
 Re-usable elastomeric respirator  
 Other respirator  
 Other

Specify other respiratory protection: \_\_\_\_\_

When present on the unit housing COVID patients but not in a patient room or in direct contact with a patient?

(i.e. when working on the ward outside a room)

- No respiratory protection  
 Home-made or improvised mask (cloth, etc)  
 NEW medical/surgical mask  
 RE-USED medical/surgical mask  
 NEW disposable respirator mask (e.g. N95, FFP2, FFP3)  
 RE-USED disposable respirator mask (e.g. N95, FFP2, FFP3)  
 Powered Air Purifying Respirator (PAPR)  
 Re-usable elastomeric respirator  
 Other respirator  
 Other

Specify other respiratory protection: \_\_\_\_\_

During the 14-day period of interest, did you have ANY contact with a known COVID patient while not wearing any respiratory protection? (i.e. no mask)

- Yes  
 No

During the 14-day period of interest, did you have ANY contact with a known COVID patient while wearing a simple medical/surgical mask or other non-respirator-level respiratory protection?

- Yes  
 No

---

During the 14-day period of interest, were you EVER present for an Aerosol-Generating Procedure while wearing a simple medical/surgical mask or other non-respirator-level respiratory protection?

- Yes  
 No

Aerosol-generating procedures:

Intubation Extubation Open respiratory suctioning  
Bronchoscopy Delivery of nebulized medication  
Induced sputum collection Use of non-invasive  
positive pressure ventilation Tracheotomy  
Cardiopulmonary resuscitation

**Exposures involving "PATIENTS UNDER INVESTIGATION for COVID-19"  
(also known as patients with "SUSPECTED COVID-19" or "COVID PUIs")**

**Patients under investigation include those:**

- 1) In whom a SARS-CoV-2 / COVID-19 test was sent, or**
- 2) Placed in COVID-related precautionary isolation according to local protocol**

**In the 14-day time period of interest, I was exposed to the following involving patients under investigation for COVID-19:**

	Yes	No
Inside a negative-pressure room with a patient	<input type="radio"/>	<input type="radio"/>
Inside a non-negative-pressure room with a patient	<input type="radio"/>	<input type="radio"/>
Within 3 feet of a patient	<input type="radio"/>	<input type="radio"/>
In the room with a patient continuously for 45 minutes or longer	<input type="radio"/>	<input type="radio"/>
In the room with a patient cumulatively for more than 1 hour over the course of a day or shift	<input type="radio"/>	<input type="radio"/>
Physical contact with a patient	<input type="radio"/>	<input type="radio"/>
Physical contact with a patient's personal items	<input type="radio"/>	<input type="radio"/>
Physical contact with respiratory secretions from a patient	<input type="radio"/>	<input type="radio"/>
Performed endotracheal intubation (I was the intubating proceduralist)	<input type="radio"/>	<input type="radio"/>
Present in the room during endotracheal intubation (but was not the proceduralist)	<input type="radio"/>	<input type="radio"/>
Performed endotracheal extubation (I pulled the tube)	<input type="radio"/>	<input type="radio"/>
Present in the room during endotracheal extubation (but did not pull the tube myself)	<input type="radio"/>	<input type="radio"/>
Performed open suctioning of secretions or body fluid of a patient	<input type="radio"/>	<input type="radio"/>

- |   |                       |                       |
|---|-----------------------|-----------------------|
| Performed closed suctioning of secretions or body fluid of a patient  | <input type="radio"/> | <input type="radio"/> |
| Present in the room during nebulizer use  | <input type="radio"/> | <input type="radio"/> |
| Been in the room with a patient on non-invasive positive pressure ventilation (e.g. CPAP, BPAP)   | <input type="radio"/> | <input type="radio"/> |
| Adjusted the mask of a patient on non-invasive positive pressure ventilation (e.g. CPAP, BPAP)  | <input type="radio"/> | <input type="radio"/> |
| Been in the room with a patient on high-flow nasal cannula  | <input type="radio"/> | <input type="radio"/> |
| Placed or adjusted a patient's high flow nasal cannula  | <input type="radio"/> | <input type="radio"/> |
| Performed bronchoscopy (I was the bronchoscopist)   | <input type="radio"/> | <input type="radio"/> |
| Present in the room during bronchoscopy (but was not the bronchoscopist)  | <input type="radio"/> | <input type="radio"/> |
| Performed rigid bronchoscopy (I was the bronchoscopist)   | <input type="radio"/> | <input type="radio"/> |
| Present in the room during rigid bronchoscopy (but was not the proceduralist)   | <input type="radio"/> | <input type="radio"/> |
| Performed open tracheotomy (I was the proceduralist)  | <input type="radio"/> | <input type="radio"/> |
| Present in the room during open tracheotomy (but was not the proceduralist)   | <input type="radio"/> | <input type="radio"/> |
| Performed percutaneous tracheostomy (I was the proceduralist)   | <input type="radio"/> | <input type="radio"/> |
| Present in the room during percutaneous tracheostomy (but was not the proceduralist)  | <input type="radio"/> | <input type="radio"/> |
| Participated in cardiopulmonary resuscitation of a patient who did not have an advanced airway (e.g. endotracheal tube) at some point during my participation | <input type="radio"/> | <input type="radio"/> |

Participated in cardiopulmonary resuscitation of a patient who had an advanced airway in place throughout my participation in the event

Recognized a failure or breach in my personal protective equipment (PPE) during an interaction with a patient or while removing PPE after an interaction

**When caring for PATIENTS UNDER INVESTIGATION for COVID-19 patients over the time period of interest:**

**What respiratory protection did you MOST FREQUENTLY utilize in the following circumstances?**

During AEROSOL GENERATING PROCEDURES?

Aerosol-generating procedures include:

Intubation Extubation Open respiratory suctioning  
Bronchoscopy Delivery of nebulized medication  
Induced sputum collection Use of non-invasive  
positive pressure ventilation Tracheotomy  
Cardiopulmonary resuscitation

- No respiratory protection
- Home-made or improvised mask (cloth, etc)
- NEW medical/surgical mask
- RE-USED medical/surgical mask
- NEW disposable respirator mask (e.g. N95, FFP2, FFP3)
- RE-USED disposable respirator mask (e.g. N95, FFP2, FFP3)
- Powered Air Purifying Respirator (PAPR)
- Re-usable elastomeric respirator
- Other respirator
- Other

Specify other respiratory protection: \_\_\_\_\_

During direct patient contact? (when aerosol generating procedures were NOT being performed)

- No respiratory protection
- Home-made or improvised mask (cloth, etc)
- NEW medical/surgical mask
- RE-USED medical/surgical mask
- NEW disposable respirator mask (e.g. N95, FFP2, FFP3)
- RE-USED disposable respirator mask (e.g. N95, FFP2, FFP3)
- Powered Air Purifying Respirator (PAPR)
- Re-usable elastomeric respirator
- Other respirator
- Other

Specify other respiratory protection: \_\_\_\_\_

When present on the unit housing patients under investigation for COVID but not in a patient room or in direct contact with a patient?

(i.e. when working on the ward outside a room)

- No respiratory protection
- Home-made or improvised mask (cloth, etc)
- NEW medical/surgical mask
- RE-USED medical/surgical mask
- NEW disposable respirator mask (e.g. N95, FFP2, FFP3)
- RE-USED disposable respirator mask (e.g. N95, FFP2, FFP3)
- Powered Air Purifying Respirator (PAPR)
- Re-usable elastomeric respirator
- Other respirator
- Other

Specify other respiratory protection: \_\_\_\_\_

**Exposures involving non-COVID patients**

**In the 14-day time period of interest, I was exposed to the following involving non-COVID patients:**

Did you perform (or were you present during) AEROSOL GENERATING PROCEDURES involving non-COVID patients in the 14-day time period of interest?  Yes  No

Aerosol-generating procedures include:

- Intubation Extubation Open respiratory suctioning
- Bronchoscopy Delivery of nebulized medication
- Induced sputum collection Use of non-invasive positive pressure ventilation Tracheotomy
- Cardiopulmonary resuscitation

How many aerosol-generating procedures involving non-COVID patients were you present for during the 14-day time period of interest? \_\_\_\_\_



**Exposures OUTSIDE THE HEALTHCARE SETTING****In the 14-day time period of interest, did you have any of the following exposures outside the medical setting?**

	Yes	No
In-person contact with a person with known COVID-19	<input type="radio"/>	<input type="radio"/>
In-person in contact with a person with symptoms of COVID-19 (but not laboratory-confirmed)	<input type="radio"/>	<input type="radio"/>
Lived in a household with someone with laboratory-confirmed COVID-19	<input type="radio"/>	<input type="radio"/>
Lived in a household with someone with symptoms of COVID-19 (but not laboratory-confirmed)	<input type="radio"/>	<input type="radio"/>
Participated in a gathering of more than 10 people	<input type="radio"/>	<input type="radio"/>
Dined in a restaurant, been to a bar, or similar (if only taking food/drink away after picking up, answer NO)	<input type="radio"/>	<input type="radio"/>
Shopped in a store (e.g. grocery store, or similar)	<input type="radio"/>	<input type="radio"/>
Used public transportation	<input type="radio"/>	<input type="radio"/>

**PERSONAL PROTECTIVE EQUIPMENT (PPE) POLICIES**

**In the 14-day time period of interest, what local policies or recommendations were in place at your institution?**

**(if you work at more than one institution, answer these questions regarding the place where you spent the most time during the time period of interest)**

Recommended by your institution to enter the room of a known COVID-19 patient (assume no recent aerosol-generating procedures were performed)

- No respiratory protection
- Home-made or improvised mask (cloth, etc)
- NEW medical/surgical mask
- RE-USED medical/surgical mask
- NEW disposable respirator mask (e.g. N95, FFP2, FFP3)
- RE-USED disposable respirator mask (e.g. N95, FFP2, FFP3)
- Powered Air Purifying Respirator (PAPR)
- Re-usable elastomeric respirator
- Other respirator
- Other

Specify other respiratory protection: \_\_\_\_\_

Recommended by your institution to enter the room of a known COVID-19 patient in which an aerosol-generating procedure will be performed

- No respiratory protection
- Home-made or improvised mask (cloth, etc)
- NEW medical/surgical mask
- RE-USED medical/surgical mask
- NEW disposable respirator mask (e.g. N95, FFP2, FFP3)
- RE-USED disposable respirator mask (e.g. N95, FFP2, FFP3)
- Powered Air Purifying Respirator (PAPR)
- Re-usable elastomeric respirator
- Other respirator
- Other

Aerosol-generating procedures include:

Intubation Extubation Open respiratory suctioning  
Bronchoscopy Delivery of nebulized medication  
Induced sputum collection Use of non-invasive  
positive pressure ventilation Tracheotomy  
Cardiopulmonary resuscitation

Specify other respiratory protection: \_\_\_\_\_

Does your institution allow "extended use" or "re-use" of disposable N95 or FFP1/FFP2/FFP3 masks?

- Yes
- No
- My institution does not have a policy for this
- I do not know my institution's policy over the time period of interest

Extended use = using the same mask, without removing, for more than one patient. Re-use: taking the mask off and putting it back on multiple times

My institution employed COVID-only units where personal protective equipment was not doffed between patients during the time period of interest

- Yes
- No
- I do not know

Does your institution utilize PPE observers to monitor proper PPE donning and doffing?

- Yes, always present and/or available
- Yes, sometimes present or available
- No
- I do not know

---

What policies were in place at your institution over the time interval in question regarding PPE brought in from home?

- Freely allowed to bring in and use PPE from home
- Allowed but not encouraged to use home PPE
- Discouraged from using home PPE
- Home PPE explicitly not allowed
- My institution does not have a policy on this
- I do not know my institutions policy over the time period in question

---

Did you use any PPE brought in from home in the last two weeks (or two weeks prior to onset of COVID symptoms)?

Check all that apply

- I did not use any PPE from home during the time period of interest
- Respirator-level respiratory protection (N95, FFP2 or FFP3, reusable elastomeric respirator, other similar)
- Simple respiratory protection (surgical or medical mask, cloth/fabric mask)
- Barrier protection (re-purposed or improvised gown/gloves/head covering)

---

Have you received in-person PPE donning and doffing training at your current institution?

- Yes
- No

---

Comments (optional)

Please do not leave any personally identifiable information, regarding yourself or another!

---

Instructions to complete this survey: 1. The submit button below will submit your data. 2. It is imperative that we compare your exposures with others at your institution who have NOT become ill. 3. Please personally forward this survey to five individuals at your institution. This will maximize the impact of your responses and experiences and help us determine what exposures are placing us at risk. The survey link will be displayed after you click "submit."

---

Click "submit" below to submit your data. Thank you! Please forward this survey to any healthcare worker colleagues who have developed COVID-19.

The survey link will be displayed after you click submit.