

W Health.

Coronavirus Disease 2019 (COVID-19)



What is coronavirus disease 2019 (COVID-19)?

- Novel (new) coronavirus that has not yet been previously seen in humans
- First identified in Wuhan, China in December 2019
- Different from the coronaviruses that commonly circulate among humans



How easily does the virus spread?

- COVID-19 is a new disease, and scientists are still learning how it spreads, the severity of illness it causes, and to what extent it may spread in the U.S.
- Currently, COVID-19 seems to be spreading easily and sustainably in the community.



How COVID-19 spreads

- Person to person (close contact within 6 feet)
- Respiratory droplets produced from a cough or sneeze
- Touching a surface or object that has the virus on it and then touching your mouth, nose, or eyes



What are the symptoms of COVID-19?

Mild to severe symptoms of:

- Fever
- Cough
- Shortness of breath
- 80 percent of patients only have mild symptoms and do not require hospitalization





How can I protect myself and others?

- Avoid close contact (6 feet) with people who are sick
- Avoid touching your eyes, nose, and mouth
- Wash your hands often with soap and water for at least
 20 seconds
- Use an alcohol-based hand sanitizer that contains at least
 60% alcohol if soap and water are not available
- Use tissues to cover coughs and sneezes, then discard tissue in the trash
- Clean/disinfect frequently touched objects and surfaces
- IF YOU ARE SICK, STAY AT HOME!



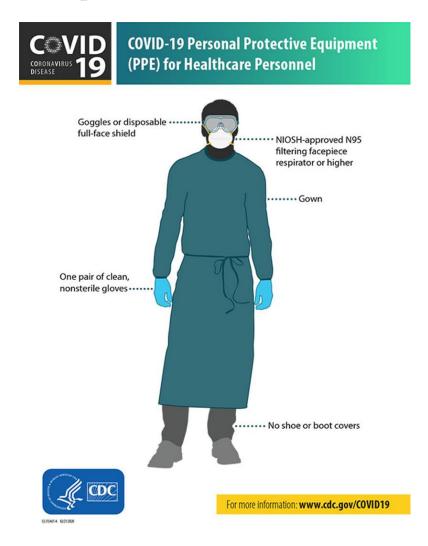
Patient Care and COVID-19?

- Only patients needing medical intervention should be referred to hospitals or clinics
- Please notify clinic or hospital at the time of referral with details such as symptoms and travel history
- Testing capabilities are limited and results are not available immediately
- Please stay up to date on the current hospital's policy (Highly Communicable Respiratory Disease) and department specific procedures
- Refer to the current CDC recommendations at <u>www.cdc.gov/coronavirus/2019-ncov/index.html</u>



How do we isolate patients?

- Combine use of Standard, Contact, Droplet, and Airborne Precautions with eye protection when caring for patients with confirmed or possible cases
- Maintain physical distancing when appropriate (6 feet)





Donning PPE

- 1. Hand hygiene
- 2. Gown
- 3. N95 Mask or PAPR
- 4. Goggles or Face Shield (not needed if PAPR)
- 5. Gloves

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

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



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





Doffing PPE

- 1. Gown and Gloves
- 2. Goggles or face shield
- 3. N95 Mask or PAPR
- 4. Hand hygiene

HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) **EXAMPLE 2**

Here is another way to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. Remove all PPE before exiting the patient room except a respirator, if worn. Remove the respirator after leaving the patient room and closing the door. Remove PPE in the following sequence:

1. GOWN AND GLOVES

- . Gown front and sleeves and the outside of gloves are
- If your hands get contaminated during gown or glove removal. immediately wash your hands or use an alcohol-based hand
- Grasp the gown in the front and pull away from your body so that the ties break, touching outside of gown only with gloved
- While removing the gown, fold or roll the gown inside-out into a bundle
- As you are removing the gown, peel off your gloves at the same time, only touching the inside of the gloves and gown with your bare hands. Place the gown and gloves into a waste



2. GOGGLES OR FACE SHIELD

- · Outside of goggles or face shield are contaminated!
- · If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band and
- without touching the front of the goggles or face shield
- · If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container

3. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal. immediately wash your hands or use an alcohol-based hand sanitizer
- . Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- · Discard in a waste container
- 4. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE





PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE





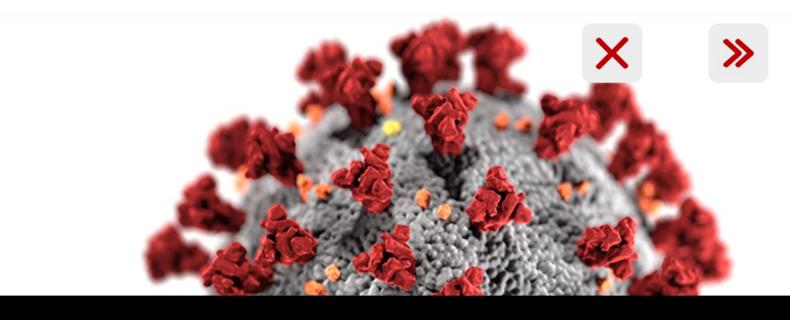
UC Health Contact Information





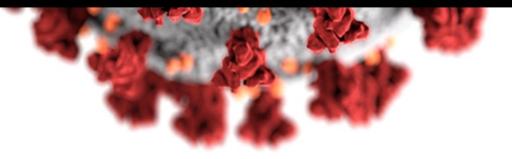


CLINICAL GUIDANCE PHONE 513-584-WASH (9274)





Personal Protective Equipment (PPE) for COVID-19



Title Slide Page 1

W Health.



Learning Objectives

- •Use PPE appropriately
- Apply universal precautions
- Utilize PPE conservation principles

You must answer this question before moving to the next page of this course.

Do you provide Direct Clinical Patient Care?

YES

NO

Objectives - Clincal Q Page 2





Abbreviations

- Personal protective equipment (PPE)
- Patient under investigation (PUI)
- Aerosol generating procedure (AGP)

Abbreviations Page 3





What When Reuse

Simple mask

Always use when on hospital premises

Can take off when eating while keeping 6 feet distance
from others

Continue to use same mask until dysfunctional or soiled

Face shield

Any patient care area (COVID-19 or not COVID-19) Can opt to use anytime when on hospital premises

Clean after:
doffing,
end of shift,
when contaminated

N95 mask

Inside patient room during aerosol generating procedures (AGP) + 1 hour after procedure

Don/doff 5 times. Cover with face shield or simple mask during use

Which Mask Page 4





PPE for PUI/COVID-19 Patients

- Droplet & contact precautions
- Use airborne precautions only for aerosol generating procedures



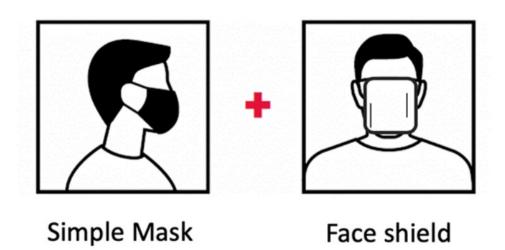
PPE for PUI-Covid-19 Patients Page 5





PPE for non PUI/non COVID-19 Patients

• Use your mask and face shield



PPE for non-PUI-Covid-19 Patients Page 6





Universal Droplet Precautions

Protecting ourselves and others

- Wearing the simple mask keeps you from spreading the virus if you are carrying the virus
- The full length face shield with the mask helps protect you from getting the virus from others
- •Both protect you from touching your face
- The full length face shield with the mask helps protect you from getting the virus from others (if they are not wearing mask)
- •Both protect you from touching your hands to face

Universal Droplet Precautions Page 7

W Health.



Universal Droplet Precautions

- Always wear a mask
- Face shield

Reusable face shield that provides:

- •Eye protection &
- Protects mask

Preserving PPE

 The face shield protects your mask from contamination and allows you to continue to wear the underlying mask again and again







When do I need to wear a mask?

- Only in a patient room
- Only in PUI/COVID-19 + patient rooms
- At all times when on UC Health premises

Check Point Q1 Page 9





When is it Ok to take off the mask?

- After leaving a patient's room
- When at the nurse's station
- When eating AND at least 6 feet from other people

Check Point Q2 Page 10





When do I need to wear the face shield?

- In all patient rooms
- In all PUI/COVID-19 + patient rooms
- Any close contact with other staff
- All of the above

Note: you may choose to wear your face shield at all times

Check Point Q3 Page 11





Continue to use the same mask until:

- Visibly soiled
- Strap broken
- Accidentally contaminated the mask



Simple Mask

If you need replacement of supply ask:

 Nursing leaders on a unit/clinic you see patients on (clinical employees)

OR

Department leader (non-clinical employees)

Same mask Page 12





•The face shield should be cleaned anytime there is concern for contamination.

Possible ways to be contaminated:

- Patient coughs or sneezes
- Touching the face shield
- •Performing an aerosol generating procedure



Face shield

Face Shield Cleaning Page 13





Perform hand hygiene.



Go to station and put on gloves.



Grab 2 germicidal wipes
OR
Spray 2 paper towels with
cleaner from spray bottles

Face Shield Cleaning Pics1 Page 14

W Health.





Face Shield Cleaning



Unfold 1 wipe and place on station OR Place 1 moist paper towel on station



Place 2nd wipe/paper towel on top of 1st wipe/power towel (clean surface)

Remove the face shield.

The front is potentially contaminated, so remove carefully by bending forward and grabbing the elastic band on the back of the head.

Face Shield Cleaning Pics2 Page 15









Pick up 2nd wipe/paper towel in one hand. Lay face shield on the germicidal wipe/paper towel.



Clean the inside of the face shield.



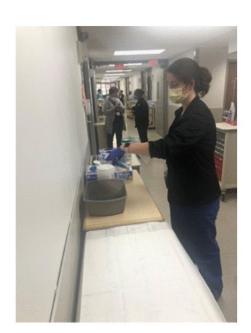
Grab the foam part of the face shield and turn to disinfect the front.

Face Shield Cleaning Pics3 Page 16





Always hold the foam when handling the shield (clean spot).



Place in available "clean" bin with foam up.

Observe and follow the contact and dry time.

Remove gloves and perform hand hygiene.

Face Shield Cleaning Pics4 Page 17







This is a sample of a cleaning station. Your process may vary based on specific unit/clinic.

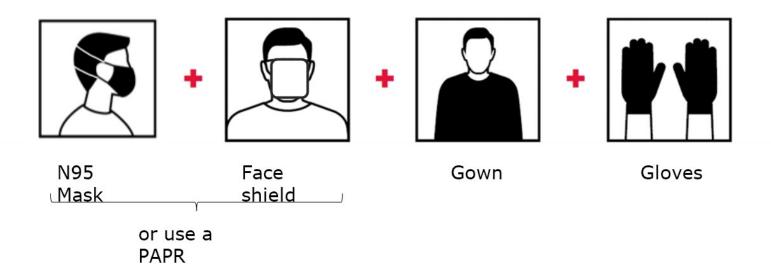
Face Shield Cleaning Pics5 Page 18





PPE for Aerosol Generating Procedures (AGP)

- Usually applicable to patients in ICU/stepdown or procedural areas
- See list of AGPs



PPE for AGP Page 19





You can wear the face shield over an N95

 Reusable face shield that covers (and protects) N95 mask and provides eye protection.

Preserving PPE

- The face shield protects your mask from contamination and allows you to continue to wear the underlying N95 mask.
- Each time you take off your N95 mask this is considered 1 use.
- •You can use your N95 mask 5 times.
- After 5th use, place in brown paper bag and follow process on unit.



Face Shield w N95 Page 20





Procedures considered AGPs

- Intubation/Extubation/ Manual bagging/ CPR
- Bronchoscopy/Laryngoscopy/TEE/EGD
- Nebulizer treatment in non-ventilator patient
- BiPAP/CPAP
- Tracheal suction through open circuit which can also happen with procedures such as changing trach, changing inner cannula, while placing patient on and off the ventilator through tracheostomy
- Sputum induction/trach aspirate/Blind BAL (PAL)
- Oropharyngeal suction, Nasopharyngeal suction in open system
- Use of Optiflow
- IPV/MetaNeb, flutter valves, PEP and PAP therapy

Please see Master list for all Aerosol Generating Procedures <u>AGP</u>
Master Link - 4.6.20

Procedures AGPs Page 21





Procedures NOT considered AGPs

- · Use of face mask, venturi mask, non-rebreather, regular nasal cannula
- High flow nasal cannula with humidification (4-15L). This should be avoided, and care should be escalated.
 However, if needed, place a simple mask on patient while using HFNC.
- MDI/ inhalers
- Use of trach collar oxygen
- Presence of tracheostomy
- · Use of ventilator with exhalation filter
- Closed circuit suction (Through ET tube, or Trach tube)
- Use of nebulizer through a ventilator circuit
- Nasogastric tube or orogastric tube placement (this generates cough with droplets but not aerosols)
- Routine oral care including superficial oral suctioning (does not include deep oropharyngeal of NT suctioning)
- P&PD, Chest physiotherapy, Vest therapy
- Neuromuscular parameters (NIF, FVC)
- Pulmonary function test

Please see Master list for all Aerosol Generating Procedures <u>AGP</u>
Master Link - 4.6.20

Procedures NOT AGPs Page 22





What are considered aerosol generating procedures (AGPs)?

- Cardiopulmonary resuscitation (CPR)
- Intubation/extubation
- Manual bagging
- BiPAP/CPAP
- All of the above

Please see Master list for all Aerosol Generating Procedures AGP Master Link - 4.6.20

Check Point Q4 Page 23





What is not an Aerosol Generating Procedure?

- Face mask, venturi mask, nasal cannula
- Nonrebreather
- Trach collar oxygen or presence of tracheostomy
- Nasogastric tube or orogastric tube placement
- All of the above

Please see Master list for all Aerosol Generating Procedures AGP Master Link - 4.6.20

Check Point Q5 Page 24





Each time I take off my N95 mask this is considered ONE use.



False

Please see appropriate Checklist for N95 Mask Reuse Extended Use and Limited Reuse Guidelines - 4.8.20

Check Point Q6 Page 25





Check Point Question 7

How many times can I reuse an N95 mask?

- 0 1
- 3
- **5**
- 10

Please see appropriate Checklist for N95 Mask Reuse Extended Use and Limited Reuse Guidelines - 4.8.20

Check Point Q7 Page 26

W Health.





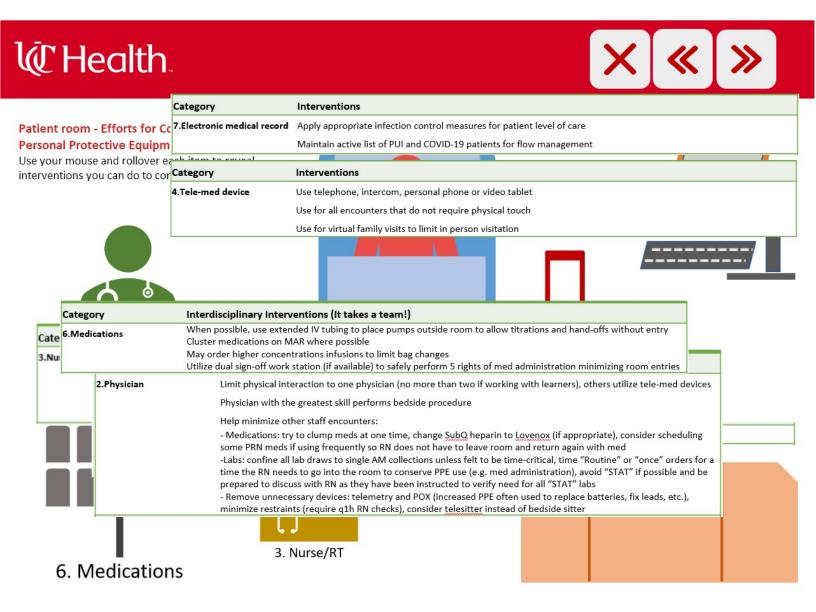


System Redesign for PPE Conservation

We all have a role in this! Small efforts by everyone will make a big impact for us all!



Call to Action Page 27



Patient Room Page 28





Category	Interdisciplinary Interventions (It takes a team!)
1. Patient	Select patients appropriately for COVID-19 testing using standardized process/ triggers
	Minimize aerosol generating procedures* (eg: change nebulization to inhalers)
	Minimize non-urgent procedures that require off unit transport
	Reduce length of stay by early discharge planning
2.Physician	Limit physical interaction to one physician (no more than two if working with learners), others utilize tele-med devices
	Physician with the greatest skill performs bedside procedure
	Help minimize other staff encounters (by coordinating with team of nurses and pharmacists):
	Medications:
	Try to clump meds at one time
	Change SubQ heparin to Lovenox (if appropriate)
	Consider scheduling some PRN meds if using frequently so RN doesn't have to leave room and return again
	Order higher-concentration infusions to limit bag changes
	Change antibiotics to IV push for shortened administration during patient care activities
	Labs:
	Confine all lab draws to single AM collections unless felt to be time-critical
	Time "Routine" or "once" orders for a time the RN needs to go into the room to conserve PPE use (e.g. med
	administration), avoid "STAT" if possible and be prepared to discuss with RN as they have been instructed to verify nee
	for all "STAT" labs
	Remove unnecessary devices:
	Telemetry and POX (increased PPE often used to replace batteries, fix leads, etc.),
	Minimize restraints (require q1h RN checks)
	Consider tele-sitter instead of bedside sitter
3.Nurse/RT	Batch tasks to limit number of room entries
	Contact patient on tele-med devices to fully understand needs prior to entering room, including supplies, medications
	comfort measures, etc.
	Use tele-med device for interventions that require dual validation to limit need for room entry by second nurse (eg:
	heparin drips, blood transfusions, consent for procedures) or utilize a designated Dual Sign-Off (DSO) workstation, if
	available in your area, to perform double check functions outside of the room.
4.Tele-med device	Use telephone, intercom, personal phone or video tablet
	Use for all encounters that do not require physical touch
	Use for virtual family visits to limit in person visitation
5.Room supplies	Pre-stock rooms with routine care supplies to avoid in-and-out room traffic
6. Medications	When possible, use extended IV tubing to place pumps outside room to allow titrations and hand-offs without entry
	Cluster medications on MAR where possible
	May order higher concentrations infusions to limit bag changes
	Utilize dual sign-off work station (if available) to safely perform 5 rights of med administration minimizing room entries
7.Electronic medical record	Apply appropriate infection control measures for patient level of care
	Maintain active list of PUI and COVID-19 patients for flow management

Pt Room Effort Page 29





Congratulations!

You successfully completed the course.

Click on the X button above to exit the course.

Conclusion Page 30

Aerosol Generating Procedures - Master List (4/6/2020)

What are aerosols and how are they produced?

Aerosols are produced when an air current moves across the surface of a film of liquid; the greater the force of the air the smaller the particles that are produced. Aerosol generating procedures (AGPs) are defined as any medical and patient care procedure that results in the production of airborne particles (aerosols). AGPs can produce airborne particles <5 micrometers in size which can remain suspended in the air and travel over a distance and may cause infection if they are inhaled. Therefore, AGPs create the potential for airborne transmission of infections that may otherwise be transmissible by droplet route. Simple cough does not generate aerosol, it is only droplet production.

Rules for COVID-19/ presumed COVID-19/ PUI:

- · Droplet + contact precautions are needed for all COVID-19/ PUI.
- For any AGPs the precautions should be Airborne + Droplet + Contact. The precautions should continue for 1 hour after procedure has been performed.
- Minimize AGP as much possible. Find alternates to therapies that can be done without AGP.
- · Minimize number of people in the room during and 1 hour after AGP.
- · Perform AGPs in negative air flow pressure rooms whenever possible.

What procedures are considered AGPs?

- Intubation/Extubation/ Manual bagging/ CPR
- Bronchoscopy/Laryngoscopy/TEE/EGD
- Nebulizer treatment in non-ventilator patient
- BiPAP/CPAI
- Tracheal suction through open circuit which can also happen with procedures such as changing trach, changing inner
 cannula, while placing patient on and off the ventilator through tracheostomy
- Sputum induction/trach aspirate/Blind BAL (PAL)
- Oropharyngeal suction, Nasopharyngeal suction in open system
- Use of Optiflow
- IPV/MetaNeb, flutter valves, PEP and PAP therapy

What procedures are NOT considered AGPs (require droplet + contact precautions)?

- · Use of face mask, venturi mask, non-rebreather, regular nasal cannula
- High flow nasal cannula with humidification (4-15L). This should be avoided, and care should be escalated. However,
 if needed, place a simple mask on patient while using HFNC.
- MDI/ inhalers
- Use of trach collar oxygen
- Presence of tracheostomy
- Use of ventilator with exhalation filter
- Closed circuit suction (Through ET tube, or Trach tube)
- Use of nebulizer through a ventilator circuit
- Nasogastric tube or orogastric tube placement (this generates cough with droplets but not aerosols)
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- P&PD, Chest physiotherapy, Vest therapy
- Neuromuscular parameters (NIF, FVC)
- Pulmonary function test





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AGP Master List Page 31



Extended Use and Limited Reuse Guidelines

This document details the extended use and limited reuse of N95 mask and protective eyewear guidelines for UC Health.

The purpose of this document is to prevent a shortage or exhaust of our supply of N95 mask and eye protection, and to ensure that our employees and clinicians have access to the necessary supplies to perform patient care safely.

Definitions

- Protective Eyewear: includes full length face shields, goggles or masks with attached eye protection shield
- Extended Use: refers to the practice of wearing the same N95 mask with a protective barrier for multiple encounters with several patients, without removing the N95 mask between the encounters.
- Limited Reuse: refers to the practice of using the same N95 mask with a protective barrier for multiple
 encounters with patients but removing it ('doffing') between at least some of the encounters.

Guidelines

- · Employee must be fit tested specifically for the N95 mask available in their work area prior to use.
- Extended use of the N95 mask is preferred over limited reuse on the assumption that it is safer for the
 employee to leave their mask in place, to reduce the risk of self-contamination through frequent donning
 and doffing of the mask.
- An employee can continue to wear the N95 mask for their entire shift. N95 mask and eye protection may
 be removed and stored appropriately for reuse later. Following the procedures in this plan will ensure user
 does not self-contaminate.
- N95 mask and eye protection can be reused in a careful and limited way during periods of short supply.
- Guidance is for reuse by a single person (no sharing). This principle applies to your N95 mask and eye
 protection.
- Limit room traffic where possible by ensuring that only those essential for patient care enter the room; strategies include bundling of care, limiting or avoiding bedside clinical teaching, limiting operating room traffic, and use of telemedicine where possible.
- Extended use or limited reuse is not recommended if the N95 mask has reached the end of its use through being damaged, soiled or moistened from sweat.
- The N95 mask should be donned and doffed no more than 5 times due to the fatigability of the elastic strap.
- If an employee used the mask for the entire day for multiple cases without removing it, this would count
 as one use. Refer below for proper reuse process.
- · All supplies of N95 masks will be stored in designated areas (ex. Unit Manager/Supervisor/Lead Office).
- A full length face shield is dedicated to an individual as the foam piece and elastic band cannot be
 adequately disinfected between people. Reuse of a full length face shield is permitted following disinfection
 guidelines.
- During patient care, take care to NOT TOUCH your mask or eye protection.



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EXTEND User Guide Page Page Page Page 12





Self Screening Acknowledgement

Purpose:

- Know the signs and symptoms of COVID-19.
- List what to do if you experience any sign or symptom of illness.
- Review how to protect yourself and protect each other from illness.
- Understand the importance of reporting your symptoms and staying home when sick.

Course Information Page 1





Symptoms of Coronavirus (COVID-19)

Know the symptoms of COVID-19, which can include the following:



People with COVID-19 have reported a wide range of symptoms – ranging from mild symptoms to severe illness.

Symptoms may appear 2-14 days after exposure to the virus.

This list does not include all possible symptoms. The CDC will continue to update this list as we learn more about COVID-19. https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html

Signs and Symptoms of Covid19 Page 2

W Health.



What do I do if I experience signs or symptoms of illness?



Review the Exposure and Employee Illness section in the COVID-19 channel on *The Link*.



Contact your employee health:

- UC Health Employees:
 - covid-redcap@uchealth.com
 - https://is.gd/UCHealthCOVID
- UC Employees/students: covidwatch@uc.edu University Health Services



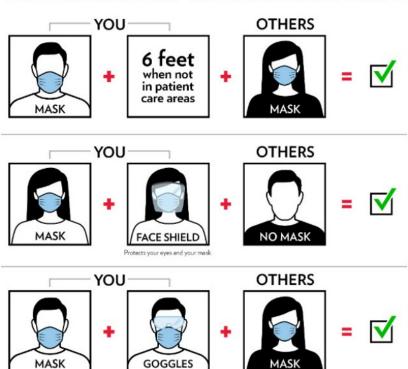
Follow the call-off procedures for your department.

What To Do Page 3





Two Barriers for the Face and Leave Some Space



Wear a mask at all times in a UC or UC Health facility and maintain 6 feet distancing whenever possible

Wear eye protection when you are within 6 feet of patients.

A face shield protects your eyes and your mask

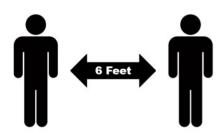
Goggles protect your eyes but not your mask. Discard your simple mask after each encounter with a patient in contact and/or droplet precautions and when soiled.

Two Barriers Page 4





Additional ways to protect yourself and others



Keep a safe distance.



Practice hand hygiene often.

Use soap and water before eating, after using the restroom and when your hands are visibly soiled.

Use hand sanitizer with at least 60% alcohol any other time - before and after wearing gloves, when entering and exiting a patient's room and after touching environmental surfaces.



Disinfect surfaces regularly.

Target frequently touched items such as desks, computers, arm rests, door handles, etc.

How to Protect myself and others Page 5





How To Wear Your Mask The Right Way

DO:



Wear your mask so it fully covers your nose, mouth and chin.

Make sure it fits snugly on the sides of your face.

Wear it at all times at UC Health locations.

Keep us all safe. If you see something, say something.

DON'T:



Wear your mask below your nose.



Wear your mask under your chin.



Wear your mask hanging off one ear.

How to properly wear a mask Page 6





Completion - Name



Click on the red box to acknowledge that you have read and completed the course. If you would like, you can print this page for future reference. Click on the X to exit the course.

- Prior to arriving at work at a UC Health location, I will assess that I do not have any of the COVID-19 symptoms listed below or on the Signs and Symptoms Slide in this course or on The Link.
 - Fever of 100.4 or higher or chills
 - Cough
 - Shortness of breath or difficulty breathing
 - Muscle or body aches
 - Congestion or runny nose
- Fatigue
- Headache
- · New loss of taste or smell
- Sore throat
- Nausea or vomiting
- Diarrhea
- I will not come to work if I am experiencing symptoms and will follow the Exposure and Employee Illness
 guidelines found on the COVID-19 Channel on The Link and I will contact employee health for further
 guidance.

UC Health Employees: covid-redcap@uchealth.com or https://is.gd/UCHealthCOVID UC Employees/students: covidwatch@uc.edu - University Health Services

- . I will follow the call-off procedures for my department.
- If I experience any symptoms of illness during my shift I will report my symptoms to employee health (at the contact listed above) for further guidance.

Final Slide Page 7