Coronavirus Disease 2019 (COVID-19)*
(*updated March 19, 2020)

Background: Coronaviruses are a large family of viruses that cause respiratory illnesses of varying severity from a mild "common cold" to a more severe illness like SARS, MERS-CoV, and now Coronavirus Disease 2019 (COVID-19), a new respiratory disease caused by a novel virus called SARS-CoV-2. COVID-19 was first recognized in China and has since been transmitted to people in more than 50 countries. The World Health Organization announced a Public Health Emergency of International Concern on January 30, 2020 and the U.S. Department of Health and Human Services declared a public health emergency on January 31, 2020.

Much remains to be understood about COVID-19 with regard to its transmissibility, severity, the duration of viral shedding after infection and other features of the illness. However, our current understanding is as follows.

Incubation Period: Symptoms may appear within 2-14 days after exposure.

Transmission Route: Respiratory droplets or aerosols generations from coughing or sneezing and/or contact with contaminated objects.

Common symptoms:
- Fever
- Cough
- Shortness of breath

Severe symptoms:
- High fever
- Pneumonia
- Respiratory failure
- Kidney failure
- Death

Case Definition of Illness with COVID-19:
- Patients with acute respiratory illness** (mild or severe) who in the 14 days prior to onset of symptoms had contact with a laboratory-confirmed COVID-19 patient or travel to areas with ongoing transmission of COVID-19 (**https://www.cdc.gov/coronavirus/2019-ncov/travelers/**).
  **** defined as any of the following symptoms or signs: cough, shortness of breath

Isolation Precautions: CDC guidance on use of isolation precautions was updated on March 10, 2020. Some recommendations are clear, but we acknowledge that some of the language used regarding the use of masks is difficult to understand and put into practice.

- Clear recommendations:
  Wear gowns, gloves, and eye protection for all interactions with patients with suspected or confirmed COVID-19. Also wear a N95 respirator or PAPR for aerosol-generating procedures.

- Subject to local interpretation:
  CDC's updated guidance allows for the use of facemasks for interactions with patients with suspected or confirmed COVID-19 if "supply chain limitations" exist. As we suspect many hospitals are either currently faced with shortages or project shortages in the near future, this recommendation allows healthcare

providers to use facemasks to conserve N95s. Each hospital needs to evaluate this new recommendation to determine the best action based on local circumstances.

- o While some hospitals face shortages of N95s, we know others are beginning to face shortages of surgical masks. Thus, moving to facemasks without evaluating stock of both types of masks may not help the issue of shortages.
- o If outpatient settings are being primarily used for testing, moving to facemasks would overcome the limitation of lack of N95 fit testing in most of those locations.
- o Some prioritization may be valuable. For example, we know some hospitals have decided to use facemasks for evaluation of suspected COVID-19 (since evaluations almost all in outpatient settings) but move to N95 for care of confirmed cases (particularly when care becomes acute enough for hospitalization).

If you have concerns about a patient presenting for care:
- • Immediately provide a surgical mask to the patient.
- • Notify clinical staff to isolate the patient in a private room with the door closed, preferably in a negative pressure room.
- • Contact Infection Prevention.

As this is an emerging situation, please visit www.cdc.gov/coronavirus/2019-nCoV for the most up-to-date information or contact your local/State Department of Public Health.

Triage and Management of Potential COVID-19 Cases

I. <u>**CRITERIA FOR PATIENT UNDER INVESTIGATION**</u>
   a. **Possible Coronavirus Disease 2019 (COVID-19) Case Definition**

Fever **or** signs/symptoms of lower respiratory illness (e.g., cough or shortness of breath)	**AND**	Any person, including healthcare workers, who has had close contact with a laboratory-confirmed COVID-19 patient within 14 days of symptom onset.
OR		
Fever **and** signs/symptoms of lower respiratory illness (e.g., cough or shortness of breath)	**AND**	A history of travel from affected geographic areas (see below) within 14 days of symptom onset.
OR		
Fever **and** signs/symptoms of lower respiratory illness (e.g., cough or shortness of breath) **and** negative influenza test (rapid or PCR)	**AND**	No other more likely diagnosis.
Geographic Areas with Sustained Transmission (Community or Widespread) https://www.cdc.gov/coronavirus/2019-ncov/travelers/		

II. <u>**UNEXPECTED PATIENT PRESENTING TO YOUR CLINICAL AREA**</u>
   a. **Identify**
      i. **Front desk staff and triage personnel**
         1. If anyone presents to clinic/ED who meets the case definition above in **Section I** or self-identifies as having been potentially exposed to another person with COVID-19 then do the following.
            a. Immediately provide a surgical mask to the patient.
            b. Notify clinical staff to isolate the patient in a private room, preferably in a negative pressure room.
            c. Contact Infection Prevention.
            d. Follow instructions in **Section IV.**

III. <u>**IDENTIFYING PATIENTS PRIOR TO UPCOMING APPOINTMENTS**</u>
   a. **Schedulers and Triage RN (Identify)**
      i. If patients call to schedule an appointment or seek advice and they report any of the symptoms listed above in **Section I**, ask the following questions.
         1. Have you had close contact with a laboratory-confirmed COVID-19 patient within 14 days of symptom onset?
         2. Have you traveled from an affected geographical area with sustained transmission of COVID-19, within 14 days of symptom onset?
      ii. If the answer is "yes" to either questions, then do the following.
         1. Schedule patient for last appointment of the day.

2. Contact Infection Prevention so that appropriate arrangement may be made.
3. Notify Nurse Manager/Team Lead and Physician/Medical Director of possible COVID-19 case and time of appointment.

IV. **CLINIC/ED STAFF PROCEDURES FOR A PATIENT WHO SCREENS POSITIVE**
   a. **Clinic/ED Staff (Isolate)**
      i. Place the patient in an unoccupied private room and shut the door. Airborne isolation (negative pressure) rooms should be reserved for patients who will be undergoing aerosol-generating procedures (e.g., intubation, bronchoscopy, open suctioning, non-invasive ventilation, high-flow nasal cannula, medication administration via continuous nebulizer, etc.).
         1. Consider expanding this instruction and also place patients with unstable respiratory status in Airborne isolation (negative pressure) rooms.
      ii. Instruct the patient to continue wearing the mask for the entire time they are in the healthcare facility (or until instructed by the Physician they may remove the mask) and that a healthcare provider will be in to assess them shortly.
      iii. Implement Transmission-based Precautions.
         1. Healthcare providers wear gloves, gown, N95 respirator OR PAPR, and eye protection (face shield OR goggles) prior to entering the room.
            a. Facemasks are an acceptable alternative when the supply chain of respirators cannot meet the demand. During this time, respirators should be prioritized for procedures that are likely to generate respiratory aerosols (e.g., intubation, bronchoscopy, open suctioning, non-invasive ventilation, medication administration via continuous nebulizer, etc.).
         2. Place the appropriate transmission-based precautions signage (e.g., Special Airborne/Contact Precautions OR Droplet/Contact Precautions) on the door and minimize traffic in/out of the room (see **Section VIII**).
         3. PPE should be donned and doffed in the appropriate order to prevent self-contamination (see **Section IV**).
   b. **Healthcare Providers (Secondary Screening)**
      i. Assess the patient to ascertain the following additional information.
         1. Travel history with specific dates and locations of travel.
         2. If they have not traveled, but have been exposed to a sick traveler, ask them to provide the sick contacts' travel history with specific dates and locations of travel.
         3. Obtain vital signs and temperature.
         4. Perform a review of systems for the following, noting date of symptom onset:
            a. Fever (date of onset, if present)
            b. Cough (date of onset, if present)
            c. Shortness of breath (date of onset, if present)

        d.   Nasal congestion (date of onset, if present)

        e.   Sore throat (date of onset, if present)

        f.   Headache (date of onset, if present)

        g.   Myalgias (muscle aches) (date of onset, if present)

5. If there is still concern for COVID-19 infection after the above review, contact Infection Prevention for further instruction.
6. If testing for COVID-19 is indicated, contact your local/State Department of Public Health to obtain approval or follow entity-specific guidance on laboratory testing for SARS-CoV-2 (see **Section VII**).
7. Infection Prevention will work with the healthcare provider to help determine the disposition of the patient as they may need to be admitted to the hospital vs. be allowed to self-quarantine at home if they do not require a higher level of medical care.

V.   EQUIPMENT AND ENVIRONMENTAL DECONTAMINATION

a. Do not use the examination room until a sufficient time has elapsed after a suspected COVID-19 patient has been discharged. Leave the door shut during this time. If a HEPA filter is available, room closure time may be decreased according to facility protocol.
b. After the requisite time has elapsed, terminally clean the room and equipment in the standard fashion using an EPA-registered, hospital-approved disinfectant. Gown and gloves should be worn when performing terminal cleaning. A facemask and eye protection should be added if splashes or sprays during cleaning and disinfection activities are anticipated.
c. If available, request that enhanced (i.e., UV-C) room disinfection take place.

VI.   EXPOSURE INVESTIGATION

a. If the patient spent time in the waiting room or was evaluated by healthcare workers before being isolated in a negative pressure or private room, the Clinic Manager or Designee should:
    i.   Assemble a list of patients who may have been in the waiting room with the patient.
    ii.   Assemble a list of all healthcare workers who spent time in the same room with the patient.
    iii.   Follow instruction provided by Infection Prevention and Occupational Health.

VII.   TESTING FOR COVID-19

a. Notify Infection Prevention with any suspect patient prior to collecting any test.
b. Diagnostic testing for SARS-CoV-2 should be limited only to symptomatic persons.
c. Providers should perform diagnostic tests for other respiratory viruses (e.g., influenza) that have similar presentation.
d. Specimens should be collected as soon as possible once a PUI is identified, regardless of the time of symptom onset.

e. Healthcare providers collecting specimens should wear recommended PPE as described above.
f. For initial diagnostic testing to detect SARS-CoV-2, collect only a nasopharyngeal swab.
    i. Upper respiratory tract
        1. Nasopharyngeal AND oropharyngeal swabs (NP/OP swabs)
            a. Use only synthetic fiber swabs with plastic or metal shafts. Do not use calcium alginate swabs or swabs with wooden shafts, as they may contain substances that inactivate some viruses and inhibit PCR testing.
            b. *Nasopharyngeal swab:* Insert a swab into the nostril parallel to the palate until resistance is encountered. Leave the swab in place for a few seconds to absorb secretions. Slowly remove swab while rotating it. Place the tip into a vial of sterile transport medium. Aseptically cut off the applicator stick so that it does not protrude above the rim of the tube and cap.
g. Contact the local/State Department of Public Health for assistance with obtaining, storing, and shipping appropriate specimens or
h. If applicable at your institution, follow entity-specific guidance on laboratory testing for SARS-CoV-2.

VIII.   Isolation Signage Sample

SPECIAL AIRBORNE/CONTACT PRECAUTIONS

STOP   ALTO

Visitors, including family, must not enter—report to Nursing Station.

HEALTH CARE WORKERS MUST WEAR

- N95 Respirator (prior fit test required)
- Gloves
- Gown
- Protective eyewear
  (you must wear **goggles** for aerosol–generating procedures)

Reminder: HAND HYGIENE must be performed before entering the room and following removal of PPE and leaving the patient's room.

For questions call the Infection Control Professional.

PRECAUCIONES ESPECIALES CONTACTO AÉREO

Visitantes tienen que reportarse en la estación de enfermeras antes de entrar a este cuarto.

Antes De Entrar A Esta Habitación Tiene Que Usar Los Siguientes Artículos De Protección Personal:

- Respirador N95 (es necesaria prueba de ajuste)
- Guantes
- Bata
- Protección para los ojos
  (Tiene que ponerse anteojos protectors para procedimientos con aerosol)

Recordatorio: Tiene que lavarse las manos antes de entrar a este cuarto, al quitarse los artículos de protección personal y al salir del cuarto.

Si tiene preguntas llame al Profesional en Control de Infecciones

CONTACT & DROPLET PRECAUTIONS FOR STAFF & VISITORS

PRECAUCIONES DE CONTACTO Y GOTAS

STOP ALTO **STOP ALTO**

VISITORS MUST REPORT TO THE NURSING STATION BEFORE ENTERING
VISITANTES DEBEN PRESENTARSE PRIMERO A LA ESTACION DE ENFERMERIA ANTES DE ENTRAR

PERFORM HAND HYGIENE
before entering and before leaving room
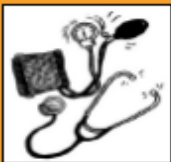REALIZAR HIGIENE de MANOS antes de entrar y antes de salir de la habitación

WEAR MASK & PROTECTIVE EYEWEAR
when entering room
Utilice MASCARILLA, & PROTECTOR DE OJOS al entrar en la habitación

WEAR GOWN & GLOVES
when entering room
UTILIZAR GUANTES & BATA al entrar en la habitación

USE PATIENT-DEDICATED
or single-use disposable shared equipment or clean and disinfect shared equipment (BP cuff, thermometers) between patients.
UTILICE equipos desechables/de un solo uso o limpie y desinfecte los equipos compartidos (manguito de presión, termómetros) entre pacientes.

IX.   SEQUENCE FOR DONNING AND DOFFING PPE

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
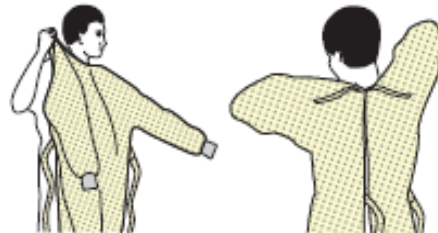
2. MASK OR RESPIRATOR

- 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

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HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 1

There are a variety of ways to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. Here is one example. **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. GLOVES

- Outside of gloves are contaminated!
- If your hands get contaminated during glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Using a gloved hand, grasp the palm area of the other gloved hand and peel off first glove
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist and peel off second glove over first glove
- Discard gloves in a waste container
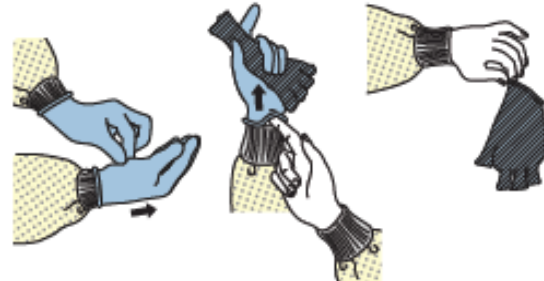
2. GOGGLES OR FACE SHIELD

- 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 or ear pieces
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container

3. GOWN

- Gown front and sleeves are contaminated!
- If your hands get contaminated during gown removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties
- Pull gown away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard in a waste container

4. 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

5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE
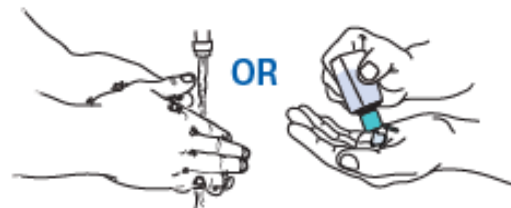
OR

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

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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 contaminated!
- If your hands get contaminated during gown or glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp the gown in the front and pull away from your body so that the ties break, touching outside of gown only with gloved hands
- 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 container
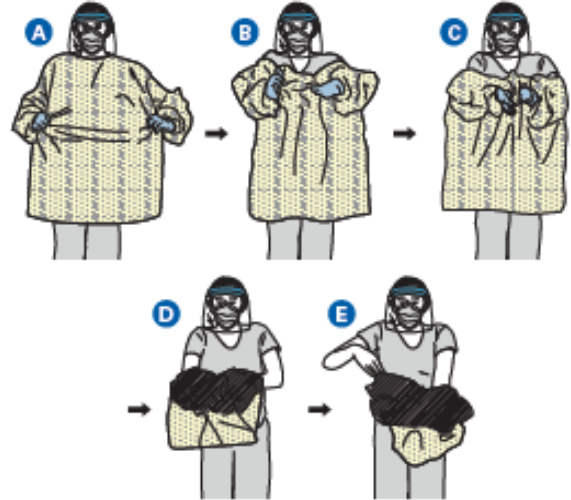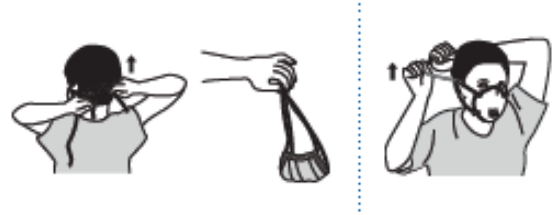

2. GOGGLES OR FACE SHIELD

- 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
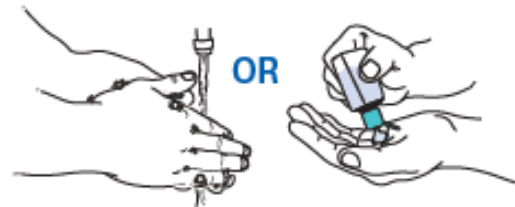

3. MASK OR RESPIRATOR

- 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

OR

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

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