Catholic Health COVID-19 General Provider Update

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March 13, 2019

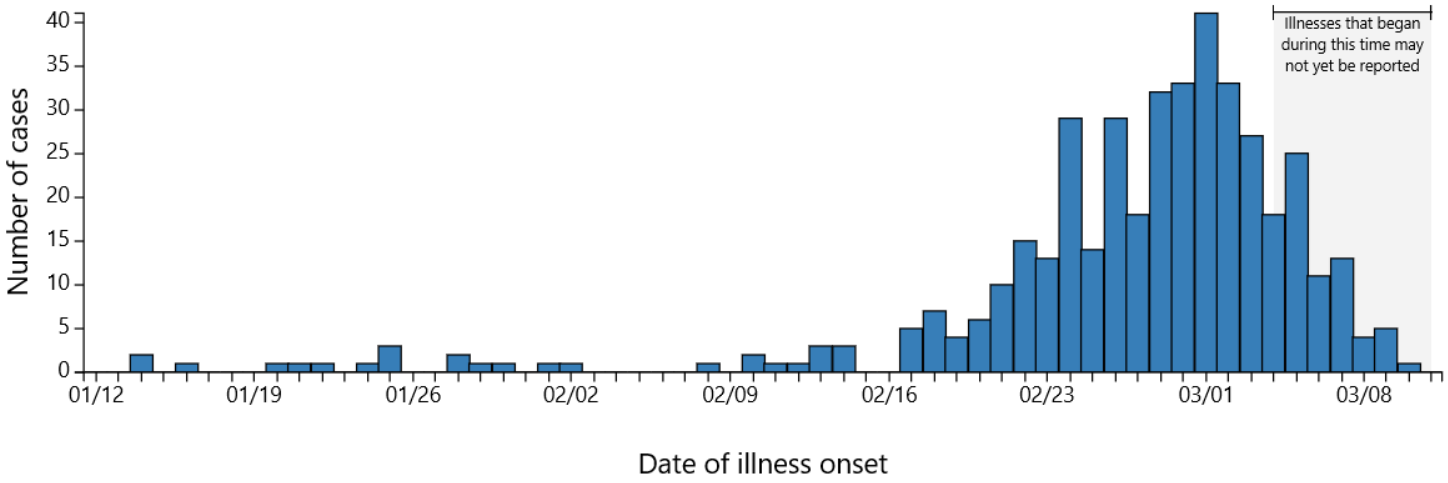
14:00 EST

COVID-19 Basics

- Virus named SARS-CoV-2. Disease named COVID-19
- Cough and Fever most common
  - Progressive over several days, peak illness days 8-11
  - Most common present to care around day 5 or 6
  - Incubation from exposure to Sx's up to 14 days, median 5-6 days.
- 80% of those that report symptoms are mild illness
- 20% Cases "Severe" →Hypoxia biggest issue, usually require inpatient care
- 5% Cases require ICU
- Age is strongest correlate to severity and mortality
- Case fatality rates under investigation. Pragmatically, expect 2-3% based on those that become symptomatic
  - This is dramatically higher than seasonal Influenza (0.1%)

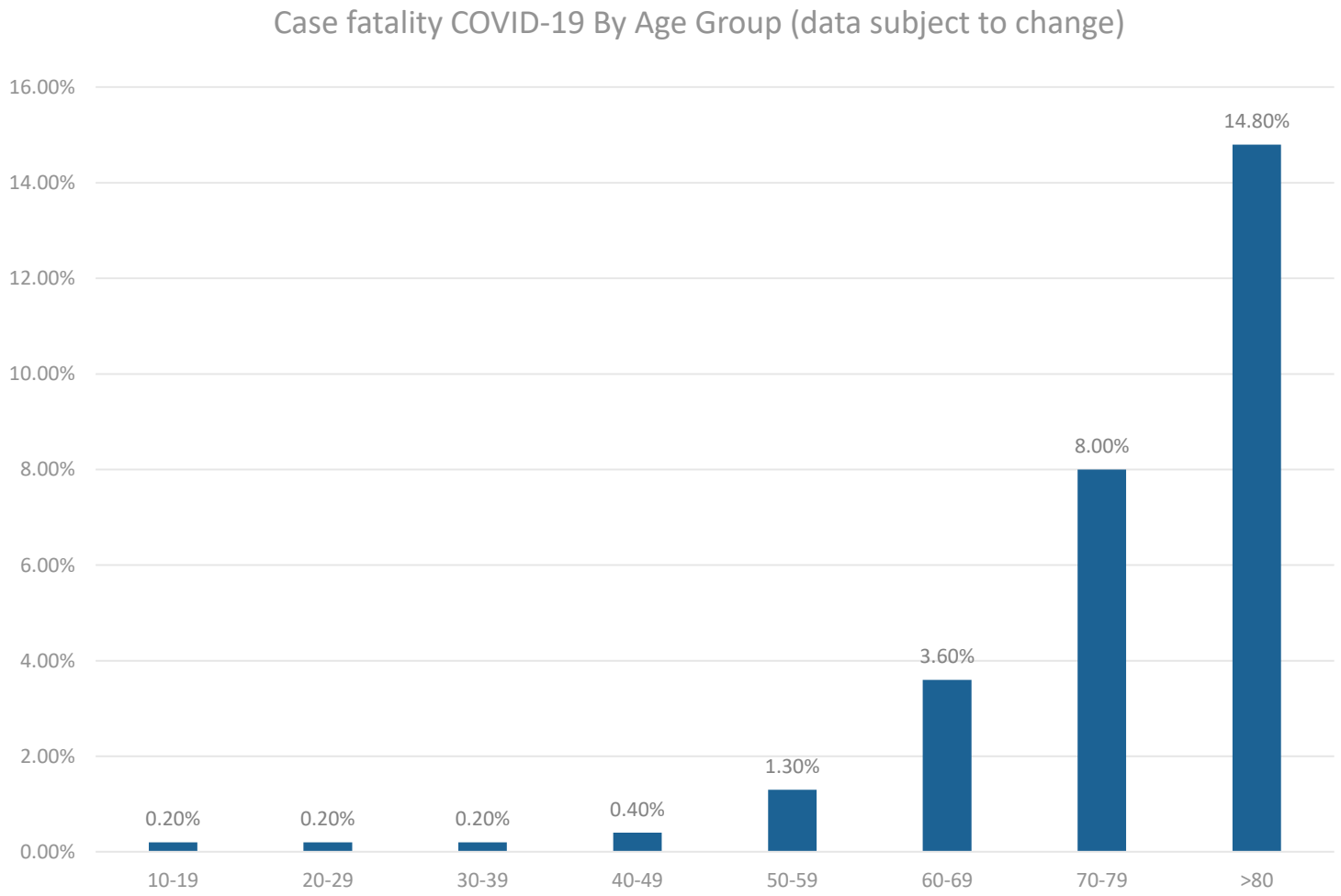
¶ Cases have laboratory confirmation and may or may not have been symptomatic.

COVID-19 cases in the United States by date of illness onset, January 12, 2020, to March 11, 2020, at 4pm ET (n=420)**



High Risk Zones:
China
S Korea
Italy
Iran
Japan

Other Travel Areas to Consider:
Westchester Co, NY metropolitan
Boston area
Seattle Area
Northern CA
Europe at Large (excl. UK)


Case fatality COVID-19 By Age Group (data subject to change)
16.00%
14.00%
12.00%
10.00%
8.00%
6.00%
4.00%
2.00%
0.00%
0.20%
0.20%
0.20%
0.40%
1.30%
3.60%
8.00%
14.80%
10-19
20-29
30-39
40-49
50-59
60-69
70-79
>80

Data Point	Findings with COVID-19	Notes
WBC count	Normal range (4-11)	Mean WBC 4.7 (95% CI: 3.5-6)
Lymphopenia	Yes (<1000 absolute)	70% COVID-19 cases have lymphopenia
Procalcitonin >0.5ng/mL	Less than 0.5	13.7% Severe cases PCT >0.5
Influenza PCR	NEGATIVE	
RSV PCR	NEGATIVE	
Pneumococcus Ag	NEGATIVE	
Legionella Ag	NEGATIVE	
CXR	Wide Range: Normal, patchy ground glass changes, ARDS pattern (severe cases)	20% Mild Cases have normal CXR. Normal imaging most common in early stages.
CT Chest	50% COVID-19 patients have nl CT if <2 days illness onset Days3-8: Ground Glass Opacities Severe Disease (d 9-11): ARDS, crazy paving, multifocal patchy consolidations	66% of mild cases and 86% of more severe cases have some parenchymal abnormality on CT early course infection usually peripheral focal or multifocal ground-glass opacities affecting both lungs in approximately 50%–75% of patients
Severe Respiratory Illness at worst days 6-11 from onset	Common Pattern for severe COVID-19	DOI: 10.1056/NEJMoa2002032 JAMA. Published online February 24, 2020. doi:10.1001/jama.2020.2648 https://pubs.rsna.org/doi/10.1148/radiol.2020200527 Wang et al. JAMA. doi:10.1001/jama.2020.1585

Infection Control: Suspected or Confirmed COVID-19

- Initial Interactions with patients presenting with lower respiratory symptoms:
  - Patient should wear procedure mask, NOT N95: The procedure mask acts to trap many infectious particles and prevents spread during transport and during in room evaluation
  - HCW should follow standard precautions: standard procedure mask and eye protection if potential for splash etc. a concern
- Patients Requiring Further Evaluation for COVID-19 OR PUI OR Confirmed COVID-19
  - CDC: N95 Respirator preferred over surgical mask for HCW caring for PUI's and confirmed COVID-19 patients, when no supply issues and HCW is fit tested
    - Some centers involved with Outbreaks are not using N95 unless high risk for aerosol. Possible this will be standard in future. WHO guidelines follow this tiered approach as well.
  - Eye Protection (eyeglasses do not count)
  - Standard Isolation Gown and Gloves
  - CDC: Negative pressure rooms only needed in select circumstances that induce aerosol: Intubation, open suctioning (not closed system on ventilator), sputum induction
- Remember Patient Hand Hygiene upon presentation and before ALL movement in the facility

Remember the Basics for Health Care Workers:

- Clean Hands
- Avoid touching face
- 6 feet of separation whenever able
- Clean potentially contaminated surfaces and Equipment regularly
- Avoid common items, common spaces

Infection Control PPE CDC Updates 3/10/20

- Airborne Isolation Rooms
  - Reserved only for COVID-19 patients undergoing aerosol generating procedures:
    - sputum induction, open suctioning of airways, intubation, Procedure Room should have surface cleaning with standard disinfectants after aerosol generating procedures

Nasopharyngeal and Oropharyngeal Swab Testing:

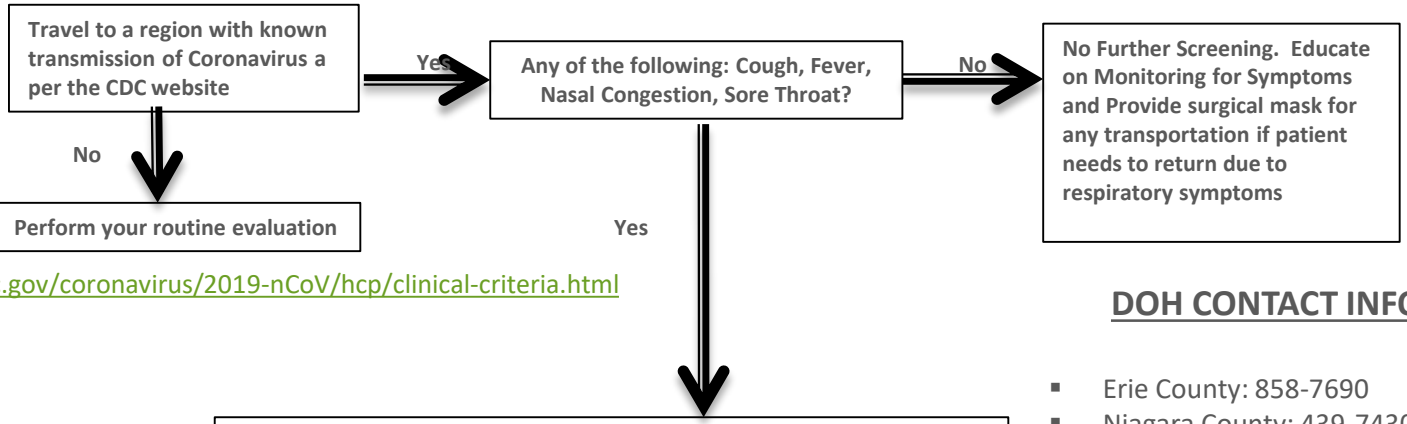
- May be performed in standard exam room with door closed
- Room should be wiped down post procedure
- Person performing the test should wear full PPE including N95
- If possible, it is acceptable to perform NP/OP swabbing in outdoor area to ensure ventilation and decrease use of rooms in a facility (car window testing).

During Times of Shortages:

- N95 Respirators should be reserved only for aerosol generating procedures
- Procedure Masks for interactions that do not have aerosol generating procedures in PUI's and Confirmed cases
- If gown shortages: gowns should be used preferentially for aerosol generating procedures and during high contact activities (moving patient in bed, dressing, changing linens etc.)

OFFICE PRACTICE SCREENING TOOL NOVEL CORONAVIRUS (COVID-19)

3/5/20 DB



https://www.cdc.gov/coronavirus/2019-nCoV/hcp/clinical-criteria.html

FURTHER EVALUATION FOR REQUIRED

Immediate utilize mask for self and Contact Isolation (gown/gloves) AND Provider to Immediately Call DOH.

- **Place procedural mask on patient and persons accompanying patient and have patient perform hand hygiene.**
- Screen accompanying persons: if they are also ill place in same room as the patient or another if available. **If not ill** they should be instructed to wear procedural mask while in building and go home after obtaining contact information. If unwilling to leave they should be instructed to sanitize hands, wear a mask and sit in a waiting area at least 6 feet from others.
- Keep patient in same room pending DOH Evaluation. Do not transport patient unless emergency.
- If transport must occur keep procedural mask on patient during movement
- Log names of all persons that come into close contact (<6 ft.) with patient including persons accompanying the patient. Efforts to minimize number of HCW's in contact with patient should be made.
- The provider will notify the DOH and give additional instructions regarding further need for isolation and testing.

DOH CONTACT INFORMATION

- Erie County: 858-7690
- Niagara County: 439-7430
- Cattaraugus County: 373-8050

Call DOH for the County the patient resides in

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Example COVID-2019 PUI Investigation Tool

Name:_____
DOB:_____
Address:_____
Phone:_____
Occupation/Employer:_____
Accompanied by? (name/phone):_____
PMH:_____

Travel Dates:_____
Travel Locations (incl. USA):_____
Activity during travel:_____
Sick Contacts?:_____
Healthcare Contacts?:_____
Animal Contacts?:_____

Notified Infection:_____
DOH Notification:_____
Testing:_____
Disposition:_____
Contact Log initiated?:_____

Labs, Imaging and testing performed:

Flu_____
RSV_____
Pneumococcus Ag_____
Legionella Ag_____
Procalcitonin_____
Absolute Lymphocytes:_____
BNP:_____

CXR_____
CT Chest_____ Ground Glass?_____ "CHF":_____
Other Imaging:_____

Clinical Features	&	Epidemiologic Risk
Fever[1] **or** signs/symptoms of lower respiratory illness (e.g. cough or shortness of breath)	**AND**	Any person, including health care workers[2], who has had close contact[3] with a laboratory-confirmed[4] COVID-19 patient within 14 days of symptom onset
Fever[1] **and** signs/symptoms of a lower respiratory illness (e.g., cough or shortness of breath) [redacted]	**AND**	A history of travel from affected geographic areas[5] (see below) within 14 days of symptom onset
Fever[1] with severe acute lower respiratory illness (e.g., pneumonia, ARDS) requiring hospitalization[4] and without alternative explanatory diagnosis (e.g., influenza)[6]	**AND**	No source of exposure has been identified

3.6.20: CDC Advisory TRAVEL FROM: CHINA, JAPAN, S. KOREA,Europe, IRAN
Consider in a recent traveler (14d) from SE Asia, Middle East or regions of U.S. with sustained transmission (Seattle area, Northern California, Westchester Co, NY) or any severe unexplained pneumonia

DOH NUMBERS to Notify If Testing

Erie: 716-858-7690
Niagara: 716-439-7430
Cattaraugus: 716-373-8050

ALL COVID-19 TESTING PERFOREMD AT CHS ACUTE AND LONGTERM CARE SITES MUST BE CLEARED BY ON CALL ID SPECIALIST

updated 3/11/20

Testing-Outpatients: Public Health Labs

- Erie County DOH has local testing for outpatients.
  - Requires a call ahead prior to sending patients for DOH approval
  - Outpatients that undergo testing currently require Quarantine (as outpatients) pending test result
- Outpatient Public Health Lab testing should be done in coordination with the Local Department of Health where the patient resides.
  - Testing criteria relatively strict.
- Collection done at DOH lab site using nasopharyngeal and oropharyngeal swabs (same testing materials and technique as a standard influenza PCR test available at all acute care sites).

NY DOH County Lab Testing Criteria

3/13/20

Any of the Following:

1) An individual has come within proximate contact (same classroom, office, or gatherings) of another person known to be positive; **or**

2) An individual has traveled to a country that the CDC has issued a Level 2 or Level 3 Travel Health Notice, and shows symptoms of illness; **or**

3) An individual is quarantined (mandatory or precautionary) and has shown symptoms of COVID-19 illness; **or**

4) An individual is symptomatic and has not tested positive for any other infection
   →requires rule out other infections including negative respiratory virus panel (RSV, PIV, Rhinovirus, Influenza, Metapneumovirus, Adenovirus)

5) Other cases where the facts and circumstances warrant as determined by the treating clinician in consultation with state and local department of health officials.

*Level 2 or 3 countries are: Japan Iran, all of Europe, S. Korea and China.
Travel from U.S. sites with sustained transmission (e.g. Westchester Co, Seattle Area also considered)

Testing-Commercial Labs

- No commercial lab collection sites for outpatients as of 3/13/20
  - Hospitals can send COVID-19 tests to commercial labs for inpatients
  - Acute care facilities should not be used for outpatients seeking testing at this time unless they require acute care evaluation
- All COVID-19 testing results require notification to local DOH

Quest Labs COVID-19 Specifications (Acute Care Sites)

ALL COVID-19 Testing ordered in Catholic Health Acute care or Longterm Care MUST be cleared by on call Infection Specialist (see intranet site for algorithm and contact).

ORDERING & SPECIMEN REQUIREMENTS

- Quest Test Name: SARS-CoV-2 RNA, Qualitative Real-Time RT-PCR
- Quest Test Code: 39433
- Collect a dedicated nasopharyngeal (NP) or Oropharyngeal (OP) swab for SARS-CoV-2 RNA test.
- No other test can be performed from these specimens.
- If other tests are needed, a second NP/OP swab should be collected.
- 72 hr stability refrigerated

Testing-Catholic Health Acute Care (Hospitals/ED's) and Long term Care sites (Nursing Homes and Rehab Centers)

- Should Follow CHS Acute Care Screening Algorithm to guide calls to Infectious Disease Specialist (CHS Intranet)
- All testing at these sites must be cleared by On-call Infectious Disease Specialist
- CDC recommended PPE must be worn when evaluating possible COVID-19 patients

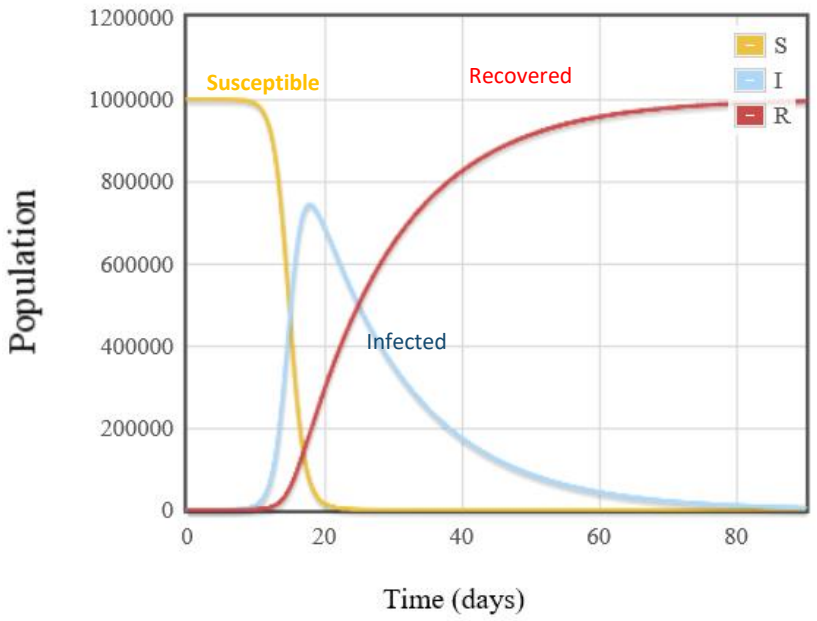
COVID-19 Care and Response Basics

- Outpatients→ Home Isolation, symptom management
- Inpatients
  - Inpatient Isolation
    - Closed Dedicated Units may be used for housing multiple COVID-19 patients if demand requires
    - Cannot cohort undiagnosed with confirmed
  - Symptom Management
  - Trials on antivirals underway
    - E.g. Redemsivir
  - Management of Respiratory Failure
- Pandemic Planning ongoing
    - All CHS Ministries are Considered in planning work
    - Supply, Facilities, Staffing, Surge, outpatient management, treatment etc. all part of planning

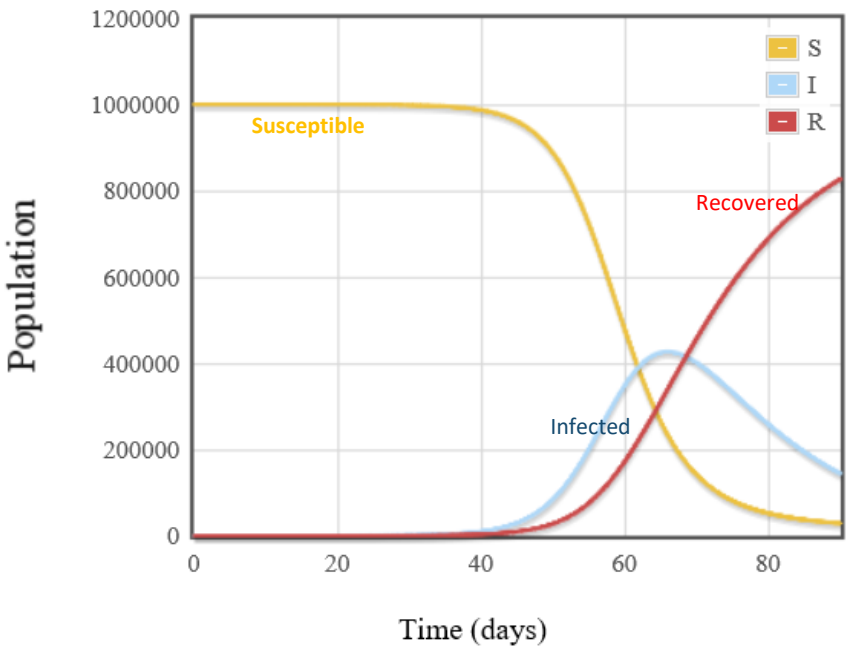
Community Actions

- Mitigation Actions
  - Avoid high transmission episodes (e.g. large public gatherings)
  - Reduce exposure likelihood for highest risk individuals.
  - Case Finding and Isolation of Community Cases
    - Ongoing work to improve testing capacity in community
- If these strategies are not adopted early enough then very steep epidemic curves
  - Steep epidemic curves dramatically increase strain on healthcare system and ability to adequately treat most severely ill patients

No Mitigation



Community Mitigation



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Defining a COVID-19 Exposure for HCW's

Exposure requires "Close Contact"

- *Defined as within 6' of person*
  - *kissing or hugging, sharing eating or drinking utensils, carpooling, close conversation, sharing a healthcare waiting area (within 6')*
  - *performing a physical examination (without PPE)*
  - *any other direct contact with respiratory secretions of a person with COVID-19.*

Tiered Criteria for risk after exposure based on PPE (or lack of) during exposure

- *Based on lack of PPE at exposure→ risk is assigned: High, Medium, Low*
- *Different Actions depending on assigned risk*

Table 1: Epidemiologic Risk Classification for Asymptomatic Healthcare Personnel Following Exposure to Patients with 2019 Novel Coronavirus (2019-nCoV) Infection or their Secretions/Excretions in a Healthcare Setting, and their Associated Monitoring and Work Restriction Recommendations

Epidemiologic risk factors	Exposure category	Recommended Monitoring for COVID-19 *(until 14 days after last potential exposure)*	Work Restrictions for Asymptomatic HCP
Prolonged close contact with a COVID-19 patient who was wearing a facemask (i.e., source control)			
HCP PPE: None	Medium	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing a facemask or respirator	Medium	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing eye protection	Low	Self with delegated supervision	None
HCP PPE: Not wearing gown or gloves[a]	Low	Self with delegated supervision	None
HCP PPE: Wearing all recommended PPE (except wearing a facemask instead of a respirator)	Low	Self with delegated supervision	None
Prolonged close contact with a COVID-19 patient who was NOT wearing a facemask (i.e., no source control)			
HCP PPE: None	High	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing a facemask or respirator	High	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing eye protection[b]	Medium	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing gown or gloves[a,b]	Low	Self with delegated supervision	None
HCP PPE: Wearing all recommended PPE (except wearing a facemask instead of a respirator)[b]	Low	Self with delegated supervision	None

3/6/20 CDC Guidance

HCP=healthcare personnel; PPE=personal protective equipment

[a]The risk category for these rows would be elevated by one level if HCP had extensive body contact with the patients (e.g., rolling the patient).

[b]The risk category for these rows would be elevated by one level if HCP performed or were present for a procedure likely to generate higher concentrations of respiratory secretions or aerosols (e.g., cardiopulmonary resuscitation, intubation, extubation, bronchoscopy, nebulizer therapy, sputum induction). For example, HCP who were wearing a gown, gloves, eye protection and a facemask (instead of a respirator) during an aerosol-generating procedure would be considered to have a medium-risk exposure.

Additional Scenarios:

- Refer to the footnotes above for scenarios that would elevate the risk level for exposed HCP. For example, HCP who were wearing a gown, gloves, eye protection and a facemask (instead of a respirator) during an aerosol-generating procedure would be considered to have a medium-risk exposure.
- Proper adherence to currently recommended infection control practices, including all recommended PPE, should protect HCP having prolonged close contact with patients infected with COVID-19. However, to account for any inconsistencies in use or adherence that could result in unrecognized exposures, HCP should still perform self-monitoring with delegated supervision.
- HCP not using all recommended PPE who have only brief interactions with a patient regardless of whether patient was wearing a facemask are considered low-risk. Examples of brief interactions include: brief conversation at a triage desk; briefly entering a patient room but not having direct contact with the patient or the patient's secretions/excretions; entering the patient room immediately after the patient was discharged.
- HCP who walk by a patient or who have no direct contact with the patient or their secretions/excretions and no entry into the patient room are considered to have no identifiable risk.

Risk Level	Management if Asymptomatic	Management if Symptomatic[1]
High risk	•Quarantine (voluntary or under public health orders) in a location to be determined by public health authorities. •No public activities. •Daily active monitoring, if possible based on local priorities •Controlled travel	•Immediate isolation with consideration of public health orders •Public health assessment to determine the need for medical evaluation; if medical evaluation warranted, diagnostic testing should be guided by CDC's PUI definition •If medical evaluation is needed, it should occur with pre-notification to the receiving HCF and EMS, if EMS transport indicated, and with all recommended infection control precautions in place. •Controlled travel: Air travel only via air medical transport. Local travel is only allowed by medical transport (e.g., ambulance) or private vehicle while symptomatic person is wearing a face mask.
Medium risk	**Close contacts in this category:** Recommendation to remain at home or in a comparable setting •Practice social distancing •Active monitoring as determined by local priorities •Recommendation to postpone long-distance travel on commercial conveyances	•Self-isolation •Public health assessment to determine the need for medical evaluation; if medical evaluation warranted, diagnostic testing should be guided by CDC's PUI definition •If medical evaluation is needed, it should ideally occur with pre-notification to the receiving HCF and EMS, if EMS transport indicated, and with all recommended infection control precautions in place. •Controlled travel: Air travel only via air medical transport. Local travel is only allowed by medical transport (e.g., ambulance) or private vehicle while symptomatic person is wearing a face mask.
Low risk	• No restriction on movement •Self-observation	•Self-isolation, social distancing •Person should seek health advice to determine if medical evaluation is needed. •If sought, medical evaluation and care should be guided by clinical presentation; diagnostic testing for COVID-19 should be guided by CDC's PUI definition. •Travel on commercial conveyances should be postponed until no longer symptomatic.
No identifiable risk	None	•Self-isolation, social distancing •Person should seek health advice if medical evaluation is needed. •If sought, medical evaluation and care guided by clinical presentation; diagnostic testing for COVID-19 should be guided by CDC's PUI definition. •Travel on commercial conveyances should be postponed until no longer symptomatic.

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What about Immunocompromised, Pregnant and older HCW's?

PPE policies, protocols, and recommendations for providing care for patients with infectious diseases are designed to protect **all** healthcare workers, regardless of their age, health or pregnancy status.

CHS Provider Additional Resources on Catholic Health Intranet Site

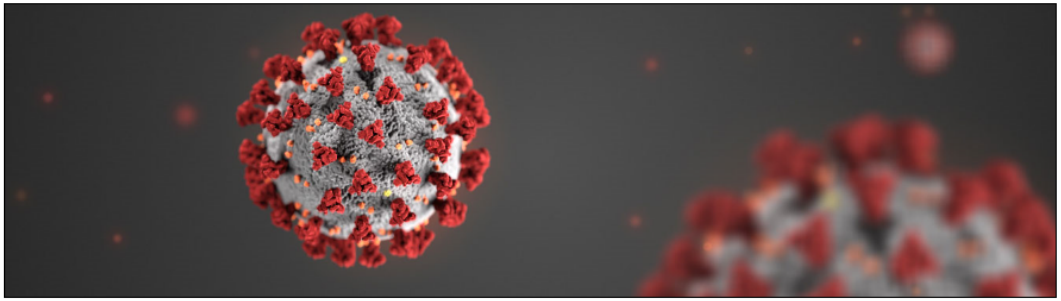
- Home
  - News Submissions
  - HR Service Center
  - Emergency Response
  - HEALTHeLINK
  - Purchasing Requests
  - Lawson ERP
  - It's Epic!
  - CH Now App
- Locations
- Departments
- Physicians
- News
- IT
- Education & Training
- Mission
- Human Resources
- Compliance
- Choose Health!
- Marketing Requests
- Submit Your Ideas!

Applications

- Public Website
- CBISA
- ChangeGear IT Portal
- Clintegrity 360
- M-Files (Policy Search)
- Employee Assistance
- Hubnet
- Kronos
- Associate Workplace Violence Reporting
- Employee Space
- Midas
- Patient & Visitor Event Reporting

Recent News

Novel Coronavirus Updates



Updated 3/12/20

- PPE Instructions and Updates
  - **UPDATED** Personal Protective Equipment (PPE) Donning and Doffing Instructions (Video) (Updated 3/12/20)
  - Sequence for Putting On PPE (PDF) (Updated 3/5/20)
  - **NEW** PPE Update for COVID-19 (Updated 3/12/20)
- Coronavirus Discharge Instructions (PDF) (Updated 3/5/20)
- Coronavirus FAQs (Updated 3/6/20) FAQs CH Intranet Page / FAQs Printable PDF
- Coronavirus Algorithm (Updated 3/11/20)
  - Acute Care - Algorithm CH Intranet Page / Algorithm Printable PDF
  - Physician Enterprise/Physician Offices/Clinics - Algorithm CH Intranet Page / Algorithm Printable PDF
- Coronavirus Signage (Updated 3/9/20)
- CDC Website
  - CDC Criteria - Evaluating and Reporting Persons Under Investigation (PUI)
  - CDC - Healthcare Personnel with Potential Exposure
- Catholic Health Updates
  - **NEW** Nursing Homes and Subacute Rehabilitation Facilities Visitation Update (3/12/20)
  - **UPDATED** Hospital Visitation Policy (includes patient visitors, contractors and vendors) (3/12/20)
  - Novel Coronavirus (COVID-19) Update 3/6/20

Hospital Visitation Policy Effective March 12, 2020

Important Information for Hospital Associates, Volunteers and Security Personnel – Effective March 12, 2020