COVID-19
Briefing for Outpatient Settings

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Disclaimer

This presentation was given on March 10, 2020 based on the CDC and VDH guidance at that time. Due to the evolving nature of our response, some information may be outdated. Please visit the CDC COVID-19 Website and the VDH COVID-19 Website for the most updated guidance.
Reservoir appears to be bats

96% identity with bat SARS-like coronavirus strain BatCov RaTG13

Intermediate host animal not yet known

SARS-CoV-2
Initially referred to as 2019-nCoV
COVID-19 Signs and Symptoms among Confirmed Cases Reported in China

<table>
<thead>
<tr>
<th>Sign or symptom*</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>87.9</td>
</tr>
<tr>
<td>Dry Cough</td>
<td>67.7</td>
</tr>
<tr>
<td>Fatigue</td>
<td>38.1</td>
</tr>
<tr>
<td>Sputum</td>
<td>33.4</td>
</tr>
<tr>
<td>Shortness of breath</td>
<td>18.6</td>
</tr>
<tr>
<td>Myalgia or arthralgia</td>
<td>14.8</td>
</tr>
<tr>
<td>Sore throat</td>
<td>13.9</td>
</tr>
<tr>
<td>Headache</td>
<td>13.6</td>
</tr>
<tr>
<td>Chills</td>
<td>11.4</td>
</tr>
<tr>
<td>Nausea or vomiting</td>
<td>5.0</td>
</tr>
<tr>
<td>Nasal congestion</td>
<td>4.8</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>3.7</td>
</tr>
</tbody>
</table>

*Among 55,924 confirmed cases
### Key Findings from the WHO-China Report (as of 2/20/20)

<table>
<thead>
<tr>
<th>Location and Occupation</th>
<th>Age</th>
<th>Sex</th>
<th>Spectrum of Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hubei Province: 77.0%</td>
<td>Median Age: 51 years</td>
<td>Male: 51.1%</td>
<td>Mild: 80%</td>
</tr>
<tr>
<td>Farmers or Laborers: 21.6%</td>
<td>Range: 2 days - 100 years</td>
<td>Female: 48.9%</td>
<td>Severe: 13.8%</td>
</tr>
<tr>
<td></td>
<td>30-69 years: 77.8%</td>
<td></td>
<td>Critical: 6.1%</td>
</tr>
<tr>
<td></td>
<td>&lt;19 years: 2.4%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ R_0 = 2-2.5 \text{ in absence of interventions} \]
# Key Findings from the WHO-China Report (as of 2/20/20)

## Duration of Illness
- **Mild Disease:** ~2 Weeks
- **Severe or Critical Disease:** 3-6 Weeks
- **Onset to Severe Disease:** 1 Week
- **Onset to Death:** 2-8 Weeks

## Severe Disease or Death
- Case-fatality Rate *Increased with Age*
  - Case-fatality Rate >80 Years: 21.9%
  - Case-fatality Rate in Males: 4.7%
  - Case-fatality Rate in Females: 2.8%
  - Severe Disease <19 Years: 2.5%
  - Critical Disease <19 Years: 0.2%

## Case-fatality Rate by Comorbidity
- **No Comorbidity:** 1.4%
- **Cardiovascular Disease:** 13%
- **Diabetes:** 9.2%
- **Hypertension:** 8.4%
- **Chronic Respiratory Disease:** 8.0%
- **Cancer:** 7.6%
Case Fatality Ratio
(Reported Deaths among Total Cases)

Case fatality ratio for COVID-19 in China over time and by location, as of 20 February 2020

Key Findings from the WHO-China Report (as of 2/20/20)

Pregnant Women (n=147)
- 64 Confirmed Cases
- Severe Disease: 8%
- Critical: 1%

Healthcare Personnel
- 2,055 Confirmed Cases
- 476 Hospitals across China
- 88% from Hubei Province
China’s Response

- Public information and targeted education
- Identified, isolated and provide medical care for cases
- Identified and quarantined contacts of cases
- Tracked cases and contacts
- Expanded healthcare staffing and hospital bed capacity
- Cancelled mass gatherings
- Closed wet markets and wildlife markets
- Banned travel in and out of Wuhan and surrounding jurisdiction
- Controlled transportation
Epidemic Curve of COVID-19 Cases in China

Epidemic curve of COVID-19 cases reported in China by date of onset of illness, as of 20 February 2020

Epidemic Curve of COVID-19 Cases Outside of China by Date and WHO Region

As of March 9, 2020

Source: www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports
Distribution of COVID-19 cases as of 09 March 2020

Number of Confirmed cases*
- 1 - 2
- 3 - 10
- 11 - 100
- 101 - 500
- 501 - 1,000
- 1,001 - 5,000
- 5,001 - 10,000
- > 10,000

*Confirmed” cases reported between 13 and 19 February 2020 include both laboratory-confirmed and clinically diagnosed (only applicable to Hubei province); for all other dates, only laboratory-confirmed cases are shown.

Country, area or territory with cases

†696 cases are identified on a cruise ship currently in Japanese territorial waters.

Data Source: World Health Organization
Map Production: WHO Health Emergencies Programme
Not applicable

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States Reporting Cases of COVID-19 to CDC

As of 3/9/20, Total U.S. Cases = 423; Total U.S. Deaths = 19

As of 3/9/20, Virginia has 5 cases of COVID-19

GUIDANCE FOR OUTPATIENT SETTINGS
Screening Patients with Respiratory Symptoms

• Have you travelled in the past two weeks, and if so where and when?
  • Stay informed with the updated affected geographic regions

• Did you have contact with someone confirmed to have COVID-19?

• Attempt to minimize exposure of patients with possible COVID-19 among other patients in waiting areas
Travel Notices and Restrictions (as of 3/3/20)

Entry of foreign nationals from these destinations has been suspended:

- China
- Iran

## Travelers Under Public Health Monitoring in Virginia

<table>
<thead>
<tr>
<th>Category</th>
<th>Low Risk**</th>
<th>Medium Risk†</th>
<th>High Risk</th>
<th>Total^^</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently under Monitoring</td>
<td>23</td>
<td>121</td>
<td>22</td>
<td>166</td>
</tr>
<tr>
<td>Completed Monitoring without further Public Health Action</td>
<td>16</td>
<td>236</td>
<td>0</td>
<td>252</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>357</td>
<td>22</td>
<td>418</td>
</tr>
</tbody>
</table>
## COVID-19 Testing Availability

<table>
<thead>
<tr>
<th>Virginia Public Heath Lab (DCLS)</th>
<th>Private Labs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Testing specimens as of February 29, 2020</td>
<td>• Select private labs are able to perform testing as of March 6, 2020</td>
</tr>
<tr>
<td>• VDH approval required - specimens should not be sent without approval</td>
<td>• VDH approval is not necessary</td>
</tr>
<tr>
<td>• Specimen collection guidance available on <a href="https://dcls.virginia.gov">DCLS website</a></td>
<td>• Contact your lab provider to determine testing availability</td>
</tr>
</tbody>
</table>
# Interim COVID-19 Testing Criteria through DCLS

<table>
<thead>
<tr>
<th>Clinical Features</th>
<th>Epidemiologic Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever OR signs/symptoms of lower respiratory illness (e.g., cough or shortness of breath) AND</td>
<td>Any person, including health care personnel, who has had close contact with a laboratory-confirmed COVID-19 patient within 14 days of symptom onset</td>
</tr>
<tr>
<td>Fever AND signs/symptoms of lower respiratory illness AND tested negative for influenza AND</td>
<td>A history of travel to a country with a Level 2 or 3 Travel Advisory OR an area with confirmed ongoing community transmission, within 14 days of symptom onset</td>
</tr>
<tr>
<td>Fever OR signs/symptoms of lower respiratory illness (e.g., cough or shortness of breath) AND tested negative for influenza AND a respiratory virus panel negative for all pathogens AND without an alternative explanatory diagnosis AND</td>
<td>Residing in a nursing home or long-term care facility within 14 days of symptom onset</td>
</tr>
</tbody>
</table>

More details can be found on the [VDH Updated Testing Guidance](http://www.vdh.gov).
Requirements to Care for Patients with Suspected or Confirmed COVID-19

Airborne Infection Isolation Room (AIIR) OR Private Room with Door Closed AND Staff Trained On Recommended Personal Protective Equipment (PPE)
Minimum PPE Requirements for Suspect or Confirmed COVID-19

**Healthcare Providers in Close Contact**
- Hand Hygiene
- N95 Respirator
- Goggles or Face Shield
- Gloves
- Gown

**Patients**
- Hand Hygiene
- Facemask

 CDC Interim Infection Prevention and Control Recommendations
Clinical Management

• Currently no specific antiviral treatment
• Prompt infection prevention and control and supportive management of complications is recommended
• Patients with mild illness might not initially require hospitalization
• Signs and symptoms might worsen in 2nd week of illness
• Decision to monitor patient in an inpatient or outpatient setting is made on case-by-case basis
• Avoid corticosteroids unless indicated for other reasons

List of treatments and vaccines in development
www.clinicaltrialsarena.com/analysis/coronavirus-mers-cov-drugs/
Transferring Suspected COVID-19 Patients

- If a patient with suspected or confirmed COVID-19 needs to be transferred to another facility
  - Provide patient with a facemask
  - Call ahead to next facility to inform them of symptoms and risk factors
  - Keep a log of all persons who cared for or entered the rooms or care area of these patients

- Contact your [local health department](mailto:localhealthdepartment) to report a suspected COVID-19 case
Virginia Reporting Requirements

COVID-19 is a reportable condition

| Healthcare providers are legally required to report all suspected cases and confirmed cases to the local health department immediately | Healthcare providers are encouraged to report cases using our online electronic reporting tool whenever possible |

Guidance on Assessment and Monitoring of Healthcare Contacts

• If COVID-19 is identified, healthcare personnel are assessed and classified as high-, medium-, or low-risk depending on multiple factors
  • Exposure duration, patient symptoms, if patient was wearing facemask, aerosol-generating procedures, and type of PPE used by healthcare personnel
• Recommendations for monitoring for COVID-19 and work restrictions depend on exposure risk classification
• LHD will work with each facility to outline roles and responsibilities

VDH Healthcare Personnel Risk Assessment Tool

Infection Prevention and Control
Actions Needed Now

• Ensure signs and respiratory etiquette stations are in place and easily visible at entrance points
• Meet with staff to educate them on COVID-19 and what to do to prepare
• Plan to optimize your facility’s supply of PPE due to ongoing shortages
  • VDH does not have PPE available for external entities
  • Report any healthcare facility supply chain issues to the Regional Healthcare Coalition
• Explore alternatives to face-to-face triage and visits to minimize healthcare worker encounters

Environmental Cleaning

- Products with EPA-approved emerging viral pathogens claims are recommended for use against COVID-19

- Follow the manufacturer’s instructions for all cleaning and disinfection products (e.g., concentration, application method and contact time, PPE)

A list of products with EPA-approved emerging viral pathogens claims, maintained by the American Chemistry Council Center for Biocide Chemistries (CBC), is available here: https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/cleaning-disinfection.html
Guidance IF COVID-19 Spreads in Community

• Reschedule non-urgent outpatient visits as necessary

• Consider reaching out to patients who may be a higher risk of COVID-19-related complications

• Consider accelerating the timing of high priority screening and intervention needs for the short-term

• Symptomatic patients who need to be seen in a clinical setting should be asked to call before they leave home

• Eliminate patient penalties for cancellations and missed appointments related to respiratory illness
Help Counter Stigma

- Support people who are coming back to school or work after completing their quarantine or isolation period for COVID-19
- Maintain confidentiality of those seeking health care and those who are part of any contact investigation
- Raise awareness without increasing fear
- Share accurate information about how virus spreads
- Provide social support
<table>
<thead>
<tr>
<th>Revised PUI Case Definition</th>
<th>Healthcare Infection Control Guidance</th>
<th>Healthcare Personnel with Potential Exposure Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnant Women and Children FAQs</td>
<td>Inpatient Obstetric Healthcare Guidance</td>
<td>Discontinuation of Transmission-based Precautions</td>
</tr>
<tr>
<td>HCP Preparedness Checklist and Tool</td>
<td>Strategies for Long-Term Care Facilities</td>
<td>COVID-10 Publications</td>
</tr>
</tbody>
</table>

CDC Resources for Outpatient Settings


VDH Resources for Outpatient Settings

Information for Healthcare Providers:
http://www.vdh.virginia.gov/content/uploads/sites/13/2020/03/Provider_FAQ_03082020.pdf

Interim Guidance for COVID-19 Testing:

Healthcare Personnel Risk Assessment Tool:
CDC Patient Resources


Steps to Prevent the Spread of COVID-19: 

Travelers: Frequently Asked Questions and Answers: 

People at Higher Risk and Special Populations: 

Preventing the Spread of COVID-19 in Communities: 
PUBLIC HEALTH SYSTEM RESPONSE
CDC Protects and Prepares Communities

CDC is aggressively responding to the global outbreak of COVID-19 and preparing for the potential of community spread in the U.S.

**Travel**
- Conducts outreach to travelers
- Issues travel notices

**Laboratory and diagnostics**
- Develops diagnostic tests
- Confirms all positive test results submitted by states

**Businesses**
- Provides business guidance including recommendations for sick leave policies and continuity of operations

**Schools**
- Provides guidance for schools including school closures and online education options

**Community members**
- Shares information on symptoms and prevention
- Provides information on home care
- Encourages social distancing

**Healthcare professionals**
- Develops guidance for healthcare professionals
- Conducts clinical outreach and education

**Healthcare systems**
- Develops preparedness checklists for health systems
- Provides guidance for PPE supply planning, healthcare system screening, and infection control
- Leverages existing telehealth tools to redirect persons to the right level of care

For more information: [www.cdc.gov/COVID19](http://www.cdc.gov/COVID19)
Virginia Readiness

Incident command structure in place since January 22, 2020

Preparedness Plans
- Built on pandemic influenza experience
- Working with CDC, state and local organizations, and other partners

Public Health Information Campaign
- Working with media and providing targeted communications
- Webpage and Call Center (1-877-ASK-VDH3)
COVID-19
Surveillance and Investigation

- Gather necessary information to guide response efforts
- Ensure appropriate prevention measures are implemented
- Perform laboratory tests when necessary
- Identify potentially exposed people

Public Health Response
Identify and Monitor People Exposed to COVID-19

- Airport screening
  - Exit & entry screening - Flights from China & Iran
  - Exit screening in Italy & Korea
- Monitoring and movement restrictions of travelers and contacts to cases
  - Contact info of travelers from China & Iran provided to state health departments
  - Other travelers instructed at airport to stay home and monitor themselves for 14 days
- Contact tracing
Nonpharmaceutical Interventions
Knowledge Gaps

- Source of infection
- Pathogenesis and virulence evolution of the virus
- Transmission dynamics
  - Role of aerosol transmission in non-healthcare settings
  - Role of fecal-oral transmission
- Viral shedding
- Risk factors for infection
  - Asymptomatic infection
- Seasonality
Take Home Messages

• Prepare your facility to safely triage and manage patients with respiratory illness, including COVID-19

• Immediately report suspect or confirmed COVID-19 cases to your local health department

• Everyone has a role to play in preparing for COVID-19 in the community
General COVID-19 Resources

Virginia Department of Health (VDH)

- 35 Local Health Districts
- www.vdh.virginia.gov/coronavirus

Centers for Disease Control and Prevention (CDC)

- COVID-19 Website: www.cdc.gov/coronavirus/2019-nCoV

World Health Organization (WHO)

- www.who.int/emergencies/diseases/novel-coronavirus-2019
Thank you!

Please send questions to:

respiratory@vdh.virginia.gov