COVID-19
Briefing for
VA Interagency Coordinating Council (VICC)

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Coronaviruses that Infect People

• 4 cause common cold symptoms
• 2 (SARS-CoV and MERS-CoV) cause severe lung infection
• Spread through coughing, sneezing or close personal contact
• Symptoms start 2-14 days after exposure

SARS-CoV-2: still much to learn
Human Coronaviruses

4 HCoVs are endemic globally
  - Up to 30% of upper respiratory tract infections in adults

2 highly pathogenic HCoVs
  - Lower respiratory tract infections
    - 2002 - SARS
    - 2012 - MERS

SARS-CoV-2
  - Still learning about virus
  - Symptoms include fever, cough. Shortness of breath
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
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.

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

Data Source: World Health Organization

Map Production: WHO Health Emergencies Programme

VDH VIRGINIA DEPARTMENT OF HEALTH
To protect the health and promote the well-being of all people in Virginia.
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
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

SARS-CoV-2
Initially referred to as 2019-nCoV

Reservoir appears to be bats
96% identity with bat SARS-like coronavirus strain BatCov RaTG13
Intermediate host animal not yet known
### Key Findings from the WHO-China Report (as of 2/20/20)

#### Location and Occupation
- **Hubei Province:** 77.0%
- **Farmers or Laborers:** 21.6%

#### Age
- **Median Age:** 51 years
- **Range:** 2 days - 100 years
- **30-69 years:** 77.8%
- **<19 years:** 2.4%

#### Sex
- **Male:** 51.1%
- **Female:** 48.9%

#### Spectrum of Disease
- **Mild:** 80%
- **Severe:** 13.8%
- **Critical:** 6.1%

\[ R_0 = 2-2.5 \text{ in absence of interventions} \]
### 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
- 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%
### 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

GUIDANCE FOR OUTPATIENT SETTINGS
Travel Notices and Restrictions (as of 3/3/20)

Entry of foreign nationals from these destinations has been suspended:

• China
• Iran

**Virginia Reporting Requirements**

**COVID-19 is a reportable condition**

<table>
<thead>
<tr>
<th>Healthcare providers are legally required to report all suspected cases and confirmed cases to the local health department immediately.</th>
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</thead>
<tbody>
<tr>
<td>Healthcare providers are encouraged to report cases using our online electronic reporting tool whenever possible.</td>
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</table>

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
Requirements to Care for Patients with Suspect or Confirmed COVID-19

Airborne Infection Isolation Room (AIIR)

OR

Private Room with Door Closed

AND

Staff Trained On Recommended Personal Protective Equipment (PPE)
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)
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/
## COVID-19 Testing Availability

<table>
<thead>
<tr>
<th>Virginia Public Heath Lab (DCLS)</th>
<th>Private Labs</th>
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<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://dclab.virginia.gov">DCLS website</a></td>
<td>• Contact your lab provider to determine testing availability</td>
</tr>
</tbody>
</table>
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

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

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

**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
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)
During the week ending February 29, 2020 (week 9), Virginia reported 7.1% of ED and UCC visits were for ILI.

During the week ending February 29, 2020, the highest ILI intensity level observed in any region was 10 (High).
COVID-19
Surveillance and Investigation

Gather necessary information to guide response efforts

Ensure appropriate prevention measures are implemented

Public Health Response

Perform laboratory tests when necessary

Identify potentially exposed people
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
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
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
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
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

Thank you!

Please send questions to:

respiratory@vdh.virginia.gov