Emerging Situation: Novel 2019 Coronavirus

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Coronavirus

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- Largest group of viruses that cause a variety of diseases in mammals and birds
- The most heavily studied animal coronavirus is murine hepatitis virus (MHV)
- *Coronaviridae* are further subdivided into four groups, the alpha, beta, gamma and delta coronaviruses

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- Four human coronaviruses, 2 α-coronaviruses (HCoV-229E and HCoV-NL63) 2 β-coronaviruses (HCoV-OC43 and HCoV-HKU1).
- Endemic in the human populations, causing 15–30% of respiratory tract infections each year.

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• Four human coronaviruses, 2 α-coronaviruses (HCoV-229E and HCoV-NL63) 2 β-coronaviruses (HCoV-OC43 and HCoV-HKU1)
• Endemic in the human populations, causing 15–30% of respiratory tract infections each year.
• They cause more severe disease in neonates, the elderly, and in individuals with underlying illnesses, with a greater incidence of lower respiratory tract infection in these populations.

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- When person-to-person spread has occurred with MERS and SARS, it is thought to have happened mainly via respiratory droplets produced when an infected person coughs or sneezes, similar to how influenza and other respiratory pathogens spread.
- Spread of SARS and MERS between people has generally occurred between close contacts.

• December 31, 2019 - several local health facilities reported clusters of patients with pneumonia of unknown cause that were epidemiologically linked to a seafood and wet animal wholesale market in Wuhan, Hubei Province, China.
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• January 10, 2020, researchers from the Shanghai Public Health Clinical Center & School of Public Health and their collaborators released a full genomic sequence of 2019-nCoV
• Preliminary analyses indicate that 2019-nCoV has some amino acid homology to SARS-CoV and may be able to use ACE2 as a receptor. This has important implications for predicting pandemic potential moving forward.
Figure 4. Phylogenetic Analysis of 2019-nCoV and Other Betacoronavirus Genomes in the Orthocoronavirinae Subfamily.

Figure 3. Visualization of 2019-nCoV with Transmission Electron Microscopy.
Negative-stained 2019-nCoV particles are shown in Panel A, and 2019-nCoV particles in the human airway epithelial cell ultrathin sections are shown in Panel B.
Construction site of Huoshenshan Hospital as of 1/24
Confused cases in Mainland China according to the National Health Commission daily reports[^124](#)

<table>
<thead>
<tr>
<th>Date</th>
<th>Confirmed Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-01-16</td>
<td>45</td>
</tr>
<tr>
<td>2020-01-17</td>
<td>62</td>
</tr>
<tr>
<td>2020-01-18</td>
<td>121</td>
</tr>
<tr>
<td>2020-01-19</td>
<td>198</td>
</tr>
<tr>
<td>2020-01-20</td>
<td>291</td>
</tr>
<tr>
<td>2020-01-21</td>
<td>440</td>
</tr>
<tr>
<td>2020-01-22</td>
<td>571</td>
</tr>
<tr>
<td>2020-01-23</td>
<td>830</td>
</tr>
<tr>
<td>2020-01-24</td>
<td>1,287</td>
</tr>
<tr>
<td>2020-01-25</td>
<td>1,975</td>
</tr>
<tr>
<td>2020-01-26</td>
<td>2,744</td>
</tr>
<tr>
<td>2020-01-27</td>
<td>4,515</td>
</tr>
<tr>
<td>2020-01-28</td>
<td>5,974</td>
</tr>
<tr>
<td>2020-01-29</td>
<td>7,711</td>
</tr>
<tr>
<td>2020-01-30</td>
<td>9,692</td>
</tr>
</tbody>
</table>

2019-nCoV Global Cases (by Johns Hopkins CSSE) As of Jan 30, 2020 9:30 pm EST

Total Confirmed
9,776

Confirmed Cases by Country/Region
9,658 Mainland China
14 Thailand
12 Hong Kong
11 Japan
10 Singapore
9 Australia
9 Taiwan
8 Malaysia
7 Macau
6 South Korea
6 US
5 France
4 Germany
4 United Arab Emirates
3 Canada

Total Deaths
213

- 5,806 confirmed; 204 deaths - Hubei Mainland China
- 537 confirmed; deaths - Zhejiang Mainland China
- 393 confirmed; deaths - Guangdong Mainland China
- 352 confirmed; 2 deaths - Henan Mainland China
- 332 confirmed; deaths - Hunan Mainland China
- 240 confirmed; deaths - Other Locations

Total Recovered
187

- 116 recovered - Hubei Mainland China
- 11 recovered - Guangdong Mainland China
- 9 recovered - Shanghai Mainland China
- 9 recovered - Zhejiang Mainland China
- 7 recovered - Jiangxi Mainland China
- 5 recovered - Beijing Mainland China
- 5 recovered - Thailand
- 3 recovered - Anhui Mainland China
- 3 recovered - Other Locations

Last Update: Jan 30, 2020 9:30 pm EST.
Visualization: JHU CSSE. Read more in this blog.
Screenshot: WHO, CDC, ECDC, NHC and DXY.

https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6
Accessed 1/30/2020
2019-nCoV in the US

• Airport screening was initiated at 3 US airports receiving the majority of direct flights from Wuhan (JFK, LAX, SFO)
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• The first infection with 2019-nCoV in the United States was reported on January 21, 2020 in Washington State
2019-nCoV in the US

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• The first infection with 2019-nCoV in the United States was reported on January 21, 2020 in Washington State
• The first case of person-to-person transmission was reported by Illinois on 1/30/2020
States with confirmed 2019-nCoV cases
<table>
<thead>
<tr>
<th>Patients Under Investigation (PUI) in the United States*†‡</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>As of 1/29/2020</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Positive</td>
</tr>
<tr>
<td>Negative</td>
</tr>
<tr>
<td>Pending§</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

*Cumulative since January 21, 2020.
† Numbers closed out at 7 p.m. the night before reporting.
‡ Excludes those with contact to a known case.
§ Includes specimens received and awaiting testing, as well as specimens in route to CDC.

Number of states with PUI: 36
2019-nCoV in AZ

• The first infection with 2019-nCoV in Arizona was reported on 1/26 in an adult living in Maricopa County with recent travel to Wuhan, China
2019-nCoV in AZ

• The first infection with 2019-nCoV in Arizona was reported on 1/26 in an adult living in Maricopa County with recent travel to Wuhan, China

• MCDPH, ADHS and CDC have coordinated the local response
2019-nCoV in AZ

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• MCDPH, ADHS and CDC have coordinated the local response

• Case contact identification, PUI classification and arrangement of testing with CDC
Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China

Chaolin Huang*, Yeming Wang*, Xingwang Li*, Lili Ren*, Jianping Zhao*, Yi Hu*, Li Zhang, Guohui Fan, Jiuyang Xu, Xiaoying Gu, Zhenshun Cheng, Ting Yu, Jiaan Xia, Yuan Wei, Wenjuan Wu, Xuelei Xie, Wen Yin, Hui Li, Min Liu, Yan Xiao, Hong Gao, Li Guo, Jungkin Xie, Guangfa Wang, Rongmeng Jiang, Zhancheng Gao, Qi Jin, Jianwei Wang†, Bin Cao†
Clinical data from Wuhan, China: 32% of hospitalized patients (n=41) required ICU care.
Clinical data from Wuhan, China: Most patients had a fever and cough. 55% had dyspnea.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>All patients (n=41)</th>
<th>ICU care (n=13)</th>
<th>No ICU care (n=28)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signs and symptoms</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fever</td>
<td>40 (98%)</td>
<td>13 (100%)</td>
<td>27 (96%)</td>
<td>0.68</td>
</tr>
<tr>
<td>Highest temperature, °C</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>≤37.3</td>
<td>1 (2%)</td>
<td>0</td>
<td>1 (4%)</td>
<td>0.037</td>
</tr>
<tr>
<td>37.3–38.0</td>
<td>8 (20%)</td>
<td>3 (23%)</td>
<td>5 (18%)</td>
<td>--</td>
</tr>
<tr>
<td>38.1–39.0</td>
<td>18 (44%)</td>
<td>7 (54%)</td>
<td>11 (39%)</td>
<td>--</td>
</tr>
<tr>
<td>&gt;39.0</td>
<td>14 (34%)</td>
<td>3 (23%)</td>
<td>11 (39%)</td>
<td>--</td>
</tr>
<tr>
<td>Cough</td>
<td>31 (76%)</td>
<td>11 (85%)</td>
<td>20 (71%)</td>
<td>0.35</td>
</tr>
<tr>
<td>Myalgia or fatigue</td>
<td>18 (44%)</td>
<td>7 (54%)</td>
<td>11 (39%)</td>
<td>0.38</td>
</tr>
<tr>
<td>Sputum production</td>
<td>11/39 (28%)</td>
<td>5 (38%)</td>
<td>6/26 (23%)</td>
<td>0.32</td>
</tr>
<tr>
<td>Headache</td>
<td>3/38 (8%)</td>
<td>0</td>
<td>3/25 (12%)</td>
<td>0.10</td>
</tr>
<tr>
<td>Haemoptysis</td>
<td>2/39 (5%)</td>
<td>1 (8%)</td>
<td>1/26 (4%)</td>
<td>0.46</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>1/38 (3%)</td>
<td>0</td>
<td>1/25 (4%)</td>
<td>0.66</td>
</tr>
<tr>
<td>Dyspnoea</td>
<td>22/40 (55%)</td>
<td>12 (92%)</td>
<td>10/27 (37%)</td>
<td>0.0010</td>
</tr>
<tr>
<td>Days from illness onset to dyspnoea</td>
<td>8.0 (5.0–13.0)</td>
<td>8.0 (6.0–17.0)</td>
<td>6.5 (2.0–10.0)</td>
<td>0.22</td>
</tr>
<tr>
<td>Days from first admission to transfer</td>
<td>5.0 (1.0–8.0)</td>
<td>8.0 (5.0–14.0)</td>
<td>1.0 (1.0–6.5)</td>
<td>0.002</td>
</tr>
<tr>
<td>Systolic pressure, mm Hg</td>
<td>125.0 (119.0–135.0)</td>
<td>145.0 (123.0–167.0)</td>
<td>122.0 (118.5–129.5)</td>
<td>0.018</td>
</tr>
<tr>
<td>Respiratory rate</td>
<td>12 (29%)</td>
<td>8 (62%)</td>
<td>4 (14%)</td>
<td>0.0023</td>
</tr>
</tbody>
</table>

Data are median (IQR), n (%), or n/N (%), where N is the total number of patients with available data. p values comparing ICU care and no ICU care are from χ² test, Fisher's exact test, or Mann-Whitney U test. 2019-nCoV=2019 novel coronavirus. ICU=intensive care unit.

Table 1: Demographics and baseline characteristics of patients infected with 2019 novel coronavirus in Wuhan, China. The Lancet. Published 1/24/2020. [https://www.sciencedirect.com/science/article/pii/S0140673620301835?via%3Dihub#]
Clinical laboratory data from Wuhan, China:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>All patients (n=11)</th>
<th>ICU care (n=1)</th>
<th>No ICU care (n=28)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>White blood cell count, x10^9/L</td>
<td>6.2 (4.1-10.5)</td>
<td>11.3 (6.8-12.1)</td>
<td>5.7 (3.1-7.6)</td>
<td>0.011</td>
</tr>
<tr>
<td>&lt;1</td>
<td>19/11 (63.3%)</td>
<td>7/7 (100%)</td>
<td>5/25 (62.5%)</td>
<td></td>
</tr>
<tr>
<td>4-30</td>
<td>18/40 (45.2%)</td>
<td>57/13 (87%)</td>
<td>13/27 (48%)</td>
<td>0.041</td>
</tr>
<tr>
<td>&gt;30</td>
<td>12/38 (31.5%)</td>
<td>7/13 (54%)</td>
<td>5/17 (29%)</td>
<td></td>
</tr>
<tr>
<td>Neutrophil count, x10^9/L</td>
<td>5.0 (3.4-8.9)</td>
<td>10.6 (5.0-11.8)</td>
<td>4.4 (2.0-6.1)</td>
<td>0.00069</td>
</tr>
<tr>
<td>Lymphocyte count, x10^9/L</td>
<td>0.8 (0.6-1.1)</td>
<td>0.4 (0.7-1.1)</td>
<td>1.4 (0.7-1.1)</td>
<td>0.0041</td>
</tr>
<tr>
<td>&lt;1</td>
<td>26/4 (63%)</td>
<td>11/13 (85%)</td>
<td>15/28 (54%)</td>
<td>0.045</td>
</tr>
<tr>
<td>&gt;1</td>
<td>15/4 (37%)</td>
<td>2/13 (15%)</td>
<td>13/28 (46%)</td>
<td></td>
</tr>
<tr>
<td>Haemoglobin, g/dL</td>
<td>126.0 (118.0-140.0)</td>
<td>122.0 (111.0-128.0)</td>
<td>130.5 (120.0-140.0)</td>
<td>0.20</td>
</tr>
<tr>
<td>Platelet count, x10^9/L</td>
<td>164.5 (131.5-263.0)</td>
<td>196.0 (165.0-263.0)</td>
<td>149.0 (130.0-263.0)</td>
<td>0.45</td>
</tr>
<tr>
<td>&lt;300</td>
<td>2/40 (5%)</td>
<td>1/13 (8%)</td>
<td>1/27 (4%)</td>
<td>0.45</td>
</tr>
<tr>
<td>&gt;300</td>
<td>38/40 (95%)</td>
<td>2/13 (15%)</td>
<td>26/27 (66%)</td>
<td></td>
</tr>
<tr>
<td>Prothrombin time, s</td>
<td>11.1 (8.1-12.4)</td>
<td>12.2 (11.2-12.4)</td>
<td>10.2 (8.8-12.1)</td>
<td>0.012</td>
</tr>
<tr>
<td>Activated partial thromboplastin time, s</td>
<td>27.2 (22.5-34.4)</td>
<td>27.2 (22.8-34.4)</td>
<td>27.2 (22.8-34.4)</td>
<td>0.57</td>
</tr>
<tr>
<td>D-dimer, mg/dL</td>
<td>0.5 (0.3-1.8)</td>
<td>2.4 (0.6-14.4)</td>
<td>0.5 (0.1-4.8)</td>
<td>0.0042</td>
</tr>
<tr>
<td>ALB, g/dL</td>
<td>31.4 (28.9-36.0)</td>
<td>27.9 (26.3-30.9)</td>
<td>34.7 (30.2-35.5)</td>
<td>0.0066</td>
</tr>
<tr>
<td>Alkaline aminotransferase, U/L</td>
<td>32.0 (21.0-50.0)</td>
<td>49.0 (29.0-115.0)</td>
<td>27.0 (19.5-40.0)</td>
<td>0.038</td>
</tr>
<tr>
<td>Aspartate aminotransferase, U/L</td>
<td>34.0 (26.0-48.0)</td>
<td>44.0 (30.0-70.0)</td>
<td>34.0 (40.0-40.5)</td>
<td>0.10</td>
</tr>
<tr>
<td>≤40</td>
<td>26/41 (63%)</td>
<td>57/13 (85%)</td>
<td>21/28 (75%)</td>
<td>0.025</td>
</tr>
<tr>
<td>&gt;40</td>
<td>15/41 (37%)</td>
<td>8/13 (62%)</td>
<td>7/28 (25%)</td>
<td></td>
</tr>
<tr>
<td>Total bilirubin, mmol/L</td>
<td>1.1 (0.5-1.3)</td>
<td>14.0 (11.5-32.0)</td>
<td>10.8 (5.4-12.3)</td>
<td>0.011</td>
</tr>
<tr>
<td>Potassium, mmol/L</td>
<td>4.2 (3.8-4.8)</td>
<td>4.6 (4.0-5.0)</td>
<td>4.1 (3.8-4.6)</td>
<td>0.27</td>
</tr>
<tr>
<td>Sodium, mmol/L</td>
<td>139.0 (132.0-140.0)</td>
<td>138.0 (132.0-140.0)</td>
<td>138.0 (132.0-140.0)</td>
<td>0.26</td>
</tr>
<tr>
<td>Creatinine, µmol/L</td>
<td>112.7 (57.5-85.7)</td>
<td>79.0 (63.1-92.2)</td>
<td>73.3 (62.5-84.2)</td>
<td>0.84</td>
</tr>
<tr>
<td>≤133</td>
<td>37/41 (90%)</td>
<td>11/13 (85%)</td>
<td>26/28 (93%)</td>
<td>0.42</td>
</tr>
<tr>
<td>&gt;133</td>
<td>4/41 (10%)</td>
<td>2/13 (15%)</td>
<td>2/28 (7%)</td>
<td></td>
</tr>
<tr>
<td>Creatine kinase, U/L</td>
<td>127.5 (62.0-219.0)</td>
<td>132.0 (62.0-219.0)</td>
<td>133.0 (61.0-189.0)</td>
<td>0.31</td>
</tr>
<tr>
<td>≤185</td>
<td>22/40 (55%)</td>
<td>7/13 (54%)</td>
<td>20/27 (74%)</td>
<td>0.21</td>
</tr>
<tr>
<td>&gt;185</td>
<td>13/40 (33%)</td>
<td>6/13 (46%)</td>
<td>7/27 (26%)</td>
<td></td>
</tr>
<tr>
<td>Lactate dehydrogenase, U/L</td>
<td>284.0 (242.0-408.0)</td>
<td>400.0 (233.0-570.0)</td>
<td>281.0 (233.0-370.0)</td>
<td>0.0044</td>
</tr>
<tr>
<td>≤245</td>
<td>11/40 (28%)</td>
<td>1/13 (8%)</td>
<td>10/27 (37%)</td>
<td>0.036</td>
</tr>
<tr>
<td>&gt;245</td>
<td>29/40 (73%)</td>
<td>12/13 (92%)</td>
<td>17/23 (73%)</td>
<td></td>
</tr>
<tr>
<td>Hypersensitive troponin I, pg/ml</td>
<td>3.4 (1.1-9.1)</td>
<td>3.3 (3.0-16.4)</td>
<td>3.5 (0.7-5.4)</td>
<td>0.08</td>
</tr>
<tr>
<td>≤0.01</td>
<td>5/41 (12%)</td>
<td>4/13 (31%)</td>
<td>1/28 (4%)</td>
<td>0.017</td>
</tr>
<tr>
<td>Prolactin, ng/mL</td>
<td>0.1 (0.1-0.1)</td>
<td>0.1 (0.1-0.1)</td>
<td>0.1 (0.1-0.1)</td>
<td>0.031</td>
</tr>
<tr>
<td>≤0.1</td>
<td>27/33 (82%)</td>
<td>5/12 (50%)</td>
<td>22/27 (82%)</td>
<td>0.0029</td>
</tr>
<tr>
<td>&gt;0.1 to &lt;0.25</td>
<td>3/33 (9%)</td>
<td>2/12 (17%)</td>
<td>1/27 (3%)</td>
<td></td>
</tr>
<tr>
<td>≤0.25 to &lt;0.5</td>
<td>2/33 (6%)</td>
<td>0/12</td>
<td>2/27 (7%)</td>
<td></td>
</tr>
<tr>
<td>&gt;0.5</td>
<td>2/33 (6%)</td>
<td>2/12 (17%)</td>
<td>0/27</td>
<td></td>
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</table>

Data are median (QR) or n/N (%), where N is the total number of patients with available data. p values comparing ICU care and no ICU care are from χ², Fisher’s exact test, or Mann Whitney U test. 2019-nCoV: 2019 novel coronavirus. ICU: intensive care unit. *Complicated typical secondary infection during the first hospitalisation.

Table 2: Laboratory findings of patients infected with 2019-nCoV on admission to hospital

Clinical data from Wuhan, China: Some serious manifestations 7+ days from illness onset.

Figure 2: Timeline of 2019-nCoV cases after onset of illness

Clinical data from Wuhan, China: 100% had PNA, 15% died.

- 41/41 had PNA.
- 28/41 eventually discharged.
  - Based on fever abatement x 10 days, improvement of CXR, viral clearance resp samples
- 6/41 at time of publication, had died.

Clinical data from U.S.: Still watching, but majority have milder manifestations.

- 6 confirmed cases in the U.S.
  - Most admitted to hospital
  - No deaths
  - 1 case without travel to Wuhan
Novel Coronavirus Outbreak (2019-nCoV)

Symptoms* of Novel Coronavirus

Patients with 2019-nCoV have reportedly had mild to severe respiratory illness with symptoms of:

- Fever
- Cough
- Shortness of breath

* Symptoms may appear 2-14 days after exposure. If you have been in China within the past 2 weeks and develop symptoms, call your doctor.

www.cdc.gov/nCoV

Person Under Investigation (PUI) Criteria

<table>
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<tr>
<th>Clinical Features</th>
<th>&amp;</th>
<th>Epidemiologic Risk</th>
</tr>
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</table>
| Fever\(^1\) and symptoms of lower respiratory illness (e.g., cough, difficulty breathing) | and | In the last 14 days before symptom onset, a history of travel from Wuhan City, China.  
- or -  
In the last 14 days before symptom onset, close contact\(^2\) with a person who is under investigation for 2019-nCoV while that person was ill. |
| Fever\(^1\) or symptoms of lower respiratory illness (e.g., cough, difficulty breathing) | and | In the last 14 days, close contact\(^2\) with an ill laboratory-confirmed 2019-nCoV patient. |
2019-nCoV Treatment

- Biomedical researchers are initiating countermeasure development for 2019-nCoV using SARS-CoV and MERS-CoV as prototypes.
- Broad-spectrum antivirals, such as remdesivir, an RNA polymerase inhibitor, as well as lopinavir/ritonavir and interferon beta have shown promise against MERS-CoV in animal models and are being assessed for activity against 2019-nCoV.
- Messenger RNA (mRNA) vaccine based on shared genome is under development with optimistic roll out in ~1 year.

Guidance for AZ Clinicians

Healthcare providers caring for a patient with fever and/or acute respiratory symptoms should:

- Isolate and mask patients presenting with acute respiratory illness and recent travel from Wuhan City, China in the last 14 days.
- **Immediately notify your local health department** and healthcare facility’s infection control personnel.
- Healthcare personnel encountering a suspect patient should use standard precautions, contact precautions, airborne precautions, and eye protection (e.g., goggles or a face shield).
- Obtain a detailed travel history for patients being evaluated with fever and acute respiratory illness.
- Consider testing for seasonal respiratory illnesses, like influenza. The viral respiratory pathogen panels available at this time often include endemic coronaviruses. **IF A PATIENT TESTS POSITIVE FOR CORONAVIRUS ON THESE TESTS IT IS NOT 2019-nCoV.**
- Coordinate with the local health department for specimen collection, transport, and testing for suspect cases.
Guidance for AZ Clinicians

- Counsel patients on the current understanding of the 2019-nCoV:
  - Only individuals with travel to Wuhan City, China in the past 14 days before symptom onset or close contact with someone being investigated for infection with 2019-nCoV are considered at risk for 2019-nCoV.
  - Testing for 2019-nCoV is only available at CDC and after approval for patients meeting criteria for a person under investigation
  - The risk to the Arizona public is considered to be relatively low, in comparison to other more common respiratory illnesses that infect residents every year.
  - If located in Maricopa County, there is a public hotline for further questions: 602-747-7099.
  - Counsel patients that there is current widespread, influenza virus and other seasonal respiratory illnesses in Arizona.
  - Arizonans are recommended to get a flu shot and follow basic prevention guidelines.
Quickly Changing Situation

• Diagnostics/Treatment/Vaccine
Quickly Changing Situation

- Diagnostics/Treatment/Vaccine
- Report of asymptomatic transmission – implications for screening travelers
Quickly Changing Situation

• Diagnostics/Treatment/Vaccine
• Report of asymptomatic transmission – implications for screening travellers
• Mild to Severe infections
2019 Novel Coronavirus

Individuals with travel to Wuhan, China are at risk for contracting the disease

azhealth.gov/coronavirus
Arizona Health Alert Network (AzHAN) is an application used to distribute important public health alerts to public health officials and healthcare professionals. AzHAN is a secure web-based application that is available 24/7/365.

https://han.health.azdhs.gov/
Take Home

- Obtain travel history
Take Home

• Obtain travel history
• Appropriate isolation
Take Home

• Obtain travel history
• Appropriate isolation
• Call public health
Take Home

• Obtain travel history
• Appropriate isolation
• Call public health
• Encourage what we CAN control, Flu Shots
Take Home

• Obtain travel history
• Appropriate isolation
• Call public health
• Encourage what we CAN control, Flu Shots
• Non-pharmaceutical interventions
Questions?

• If you have any questions about this presentation, please contact flu@azdhs.gov

• If you have any clinical or PUI-related questions, please contact your local public health department.