Trace, Test and Treat COVID-19 in Korea

Myongji Hospital, Korea
Epidemiologic curve in Korea

- **Jan 20**: The first confirmed case was identified.
- **Jan 25**: The 3rd case admitted to Myongji Hospital.
- **Feb 18**: Confirmed its 31st case in Daegu, a member of the Shincheonji religious organization.
- **Feb 20**: The first death was reported in a ward of Cheongdo Daenam Hospital in Cheongdo County.
- **Feb 22**: 169 confirmed cases involved the same church and another 111 came from the Cheongdo Daenam Hospital.
- **Feb 28**: Over 2,000 confirmed cases were reported.
- **Mar 11**: WHO declared COVID-19 as a pandemic.
- **Mar 13**: The number of recoveries was larger than the number of those who newly tested positive.
- **Mar 18**: 79 church devotees were infected with the virus.

**Source:** KCDC
Epidemiologic curve in Korea

- Daegu, Gyeongbuk
- Seoul, Gyeonggi, Incheon

Source: KCDC
Demographics & Case fatality rate

High risk groups: old age (60 and above, patients with underlying diseases)

Confirmed cases by age

Case fatality rate: 1.1 %

Source: KCDC
Epidemiology in Korea

Confirmed Cases

- Gyeonggi: 309
- Gangwon: 30
- Incheon: 36
- Seoul: 299
- Chungbuk: 33
- Chungnam: 119
- Sejong: 41
- Gyungbuk: 1,203
- Jeonbuk: 10
- Gyungnam: 87
- Jeonnam: 5
- Gwangju: 18
- Busan: 108

Source: KCDC
Korea’s 4 Key Strategies against COVID-19

1. Transparency & Openness
2. Containment & Mitigation
3. Triage & Treatment system
4. Massive screening & Fast tracking
Transparency & Openness

transparent and open communication
Transparency & Openness

No imposed regional blockade in Daegu

International entry is open
employs a two-pronged approach to contain the virus namely, containment and mitigation
Containment & Mitigation

Social distancing has been adopted not forcibly but by inducing voluntary civic participation.

Social Distancing Campaign to Prevent the Spread of COVID-19

Please keep the following rules for 2 weeks:

1. Refrain from going outdoors and avoid physical contact with others.
2. Keep in touch with people through social media instead of meeting them in person.
3. Keep your personal hygiene by washing your hands and wearing a mask.

This campaign is based on the recommendations of the COVID-19 Countermeasures Committee (Feb. 28) and the Korean Medical Association (Feb. 28).

Before visiting the hospital, please call: 1330 / 1345 / 120

Seoul Metropolitan Disaster and Safety Countermeasures Headquarters
Triage & treatment system

- Critical: 5%
- Severe: 14%
- Mild to Moderate: 81%

Cases that were not identified and not diagnosed

Tertiary hospitals
National designated isolation hospitals
Public community hospitals
Community treatment centers
Massive screening & fast tracking

EUA-granted diagnostic kits in Korea

<table>
<thead>
<tr>
<th>Company</th>
<th>Approved</th>
<th>Weekly supply (kits)</th>
<th>Weekly Diagnostic Capability (people)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kogene Biotech</td>
<td>Feb. 4</td>
<td>10,000</td>
<td>250,000</td>
</tr>
<tr>
<td>Seegene</td>
<td>Feb. 12</td>
<td>1,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Solgent</td>
<td>Feb. 27</td>
<td>1,000</td>
<td>50,000</td>
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<tr>
<td>SD Biosensor</td>
<td>Feb. 27</td>
<td>2,000</td>
<td>100,000</td>
</tr>
<tr>
<td>BioSewoom</td>
<td>Mar. 16</td>
<td></td>
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</tr>
</tbody>
</table>

EUA: Emergency Use Authorizations
Massive screening & fast tracking

Korea developed ‘drive-thru’ and ‘walk-thru’ test centers for COVID-19.
Massive screening & fast tracking

20,000 people are being tested every day

100 laboratories to test for SARS-CoV-2
Myongji Hospital
n = 19 (as of Mar 19)
• The groups are classified by KCDC
Cases in Myongji Hospital

- Cardiovascular disease: 29%
- Others: 14%
- Pulmonary disease: 7%
- Cancer: 7%
- Chronic liver disease: 14%
- Diabetes: 29%

67% pneumonia developed
Response


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Department of Pulmonary and Critical Care Medicine, Myongji Hospital, Goyang, Korea
Development of RT-PCR Kit & Better Diagnosis Using AI
Thank you

Myongji Hospital, Korea