“Drive Thru” COVID-19 Screening Center Standard Operating Model

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The Central Disaster Management Headquarters

The Korea Centers for Disease Control and Prevention
Below is the standard operating model for “Drive-Thru” COVID-19 screening center. Please refer to <COVID-19 Screening Center Operation Guide> for basic information regarding screening center operations.

1. Project Background

- With increased demand for diagnostic tests, there is a need for expanding “Drive-Thru” COVID-19 screening centers that do not require particular equipment (e.g. negative pressure tents, etc.) and allows safe and efficient large-scale specimen collection by reducing disinfection and ventilation time.

  *Definition of Drive-Through COVID-19 screening center*: a screening center where screening for travel history and symptoms, fever check, and specimen collection are performed through the window without the subject leaving his or her car.

  **Number of specimens collected per hour**: 2 samples (Conventional screening center) vs 6 samples (Drive-Thru)

2. Basic Direction

- ‘Drive Thru’ model serves as a one-stop where subjects undergo a series of steps including ‘registration - screening - specimen collection - disinfection and instruction’ in their vehicles.

- Aims to perform large-scale specimen collection, as a specialized screening center to fulfill the sole function of collecting specimens

  * No performance of other medical care and drug prescriptions, etc.

- **Time**: About 10 minutes to complete ‘registration - screening - specimen collection - disinfection and instruction’

- **Number of specimens**: 6 per hour x 10 hours per day = 60 specimens
3. Operating Procedures

- **Appointment**: Operate COVID-19 hotline service in the situation room of public health center and healthcare facility
  - To **reduce the time required for on-site registration and screening**, check subjects for health status and international travel history and then **schedule** his or her visit time in advance

- **Registration**: Verify Identity*, check travel history, contact history, and symptoms; complete questionnaire (one administrative personnel)
  - Guide subjects to keep the **car ventilation mode as internal circulation**
  * Identity verification: Verify the personal information (e.g. name, address, contact number, etc.); make sure to **double-check** the contact information

- **Screening**: Ask additional questions, decide on whether to test and collect specimens from the upper and the lower respiratory tract (one physician)
  - Collecting a specimen from the **lower respiratory tract** is conducted only under the physician’s decision and only **when the patient has phlegm and can expectorate alone** (guidelines for collecting specimens were released by Central Disease Control Headquarters, February 20)

- **Specimen collection**
  - **Upper respiratory tract**: Medical personnel, while staying in the **booth**, collects specimens from the patient **inside the car**; make sure to **wear personal protective equipment** and **change gloves after the collection** (one nursing personnel)
  - **Lower respiratory tract**: Patient collects phlegm samples **in the car** on their own with the **windows closed**; medical personnel receive, package, and manage the specimen; make sure to **wear personal protective equipment** and after the collection, **sterilize** and **change gloves** (one nursing personnel)

- **Disinfecting the car and instruction**
  - **Disinfecting the car**: After specimen collection, instruct patients to **clean the interior of the car with a disinfectant wipe** they are given → close the window and **disinfect car windows and exterior with a disinfectant spray** (one epidemic control officer)
  - **Instruction**: Instruct patients to be **home-quarantined until the results are released** and **not to let anyone else including family members** use the same car (one administrative personnel)
4. Operation Guide

❖ Use either the first or second option in a way suitable for each agency’s situation

○ Option 1: Four separate booths: “Reception -> Screening -> Specimen Collection-> Disinfection and Instruction”
  - Less than 5 minutes required for each booth; this enables reduced waiting time and large-scale specimen collection
  - Four separate booths require sufficient space and personnel for installation and operation

Note: Drive-through COVID-19 Screening Center Model (option 1)

Case: Drive-through COVID-19 Screening Center (option 1)

<Yeungnam University Hospital Case>  <Goyang Public Health Center Case>
Option 2: Operations simplified in two steps: “Registration and Waiting → Screening, Specimen Collection, Disinfection and Instruction”

- Two booths facilitate an efficient use of space and personnel while performing the same procedure.
- Possible waiting time on account of many processes operated in one booth.
* Need to efficiently schedule appointments by hotline services.

Note: Drive-through COVID-19 Screening Center Model (Option 2)

Case: Drive-through COVID-19 Screening Center at Sejong Public Health Center

Step 1: Appointment Confirmation and Waiting
Step 2: Screening, Specimen Collection, Disinfection/Instruction
5. Necessary Resources

a. **Installation type:** Operate a *container type* or an *open tent type* according to the situation of each institution

b. **Personnel:** Operated by 4 to 8 people depending on the type of operation: *1 to 3 administrative personnel* (for registration, instruction, facility management, vehicle control, etc), *1 to 2 doctors* (for screening), *1 to 2 nursing staffs* (for specimen collection) and *1 epidemic control officer* (for disinfection)

c. **Conditions for the place**

- Size and Area suitable for the standard screening center
- Places away from the residential areas and with good ventilation
- Consider access for local residents
- Places that can accommodate storage, electrical equipment, communication facilities, and water supplies
- Immediate availability
- Enough storage space for healthcare wastes
- Spaces allowing easy flow management for parking

6. Considerations

a. **For single-person driver only** (guardian cannot ride together)
   - In order to take advantage of this concept, *use other COVID-19 screening centers* if the patient cannot drive by themselves.
   * If there is a passenger or a guardian drives for a symptomatic individual (e.g. child), the individual must get off the car for specimen collection in a separate space. Therefore, there is no benefit for drive-through screening.

b. **Medical personnel** must *wear personal protective gear* and perform registration, screening, and specimen collection standing inside the booth or in open space. (Booth and the car should keep a close distance for fast and easy specimen collection)
   * If there are any extra personnel available, *assign two personnel to one booth* so that they can rotate.

c. **Allow pre-appointment to reduce waiting time**
   - Recommend operating COVID-19 hotline service in the public health center/healthcare facility to check the health status and international travel history of the patient and scheduling appointments in advance to reduce waiting time.
### Reference ‘Drive Thru’ COVID-19 Screening Center Operation Status

<table>
<thead>
<tr>
<th>Description</th>
<th>Operation method</th>
<th>Image</th>
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</table>
| Goyang City Public Health Center (02/26/2020~)   | ①: Take history → ②: Screening → ③: Specimen collection  
*①-③ Use separate tents  
** Under 10 minutes required+(waiting time) | ![Image](https://via.placeholder.com/150) |
| Yeungnam University Medical Center (02/26/2020~) | ①: Registration → ②: Screening → ③: Receive payment → ④: Specimen collection  
*①-④ Use separate containers  
** Under 10 minutes required+(waiting time) | ![Image](https://via.placeholder.com/150) |
| Sejong City Public Health Center (02/26/2020~)   | ①: Confirm appointment → ②: Registration, Screening, Specimen collection  
*①-② Use separate tents  
** Under 10 minutes required (appointment system is implemented)  
❖ Appointment: public health center hotline operates 5 dedicated lines | ![Image](https://via.placeholder.com/150) |
| Jinju City Public Health Center (02/28/2020~)    | ①: Registration and screening → ②: Specimen collection  
*① Use separate tent  
② Cars move without additional equipment  
** Under 10 minutes required+(waiting time) | ![Image](https://via.placeholder.com/150) |

❖ Screening centers also operate in Namyangju City (02/27~), Incheon Metropolitan City (02/27~), Gyeongju City (02/28~), and others.
Disclaimer

The original document was developed by the South Korean government and has been translated from Korean to English by a group of volunteers listed below.

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