

“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

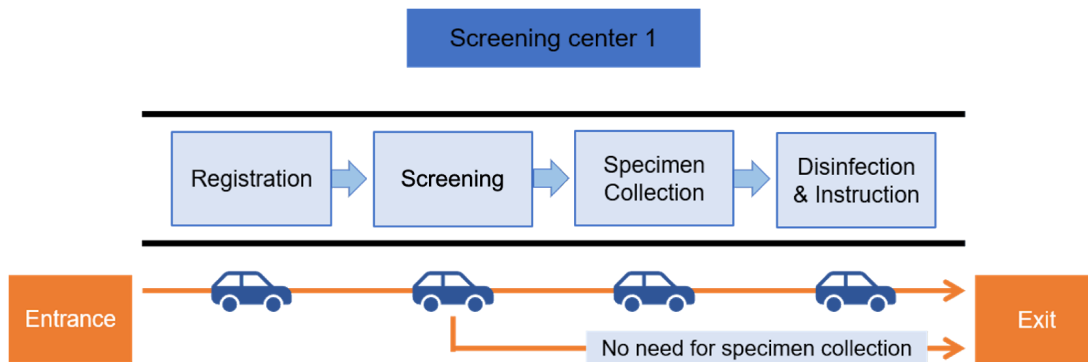
- **Appointment:** Operate **COVID-19 hotline service** in the situation room of public health center and healthcare facility
 - To **reduce the time required for on-site registration and screening**, check subjects for **health status and international travel history** and then **schedule** his or her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

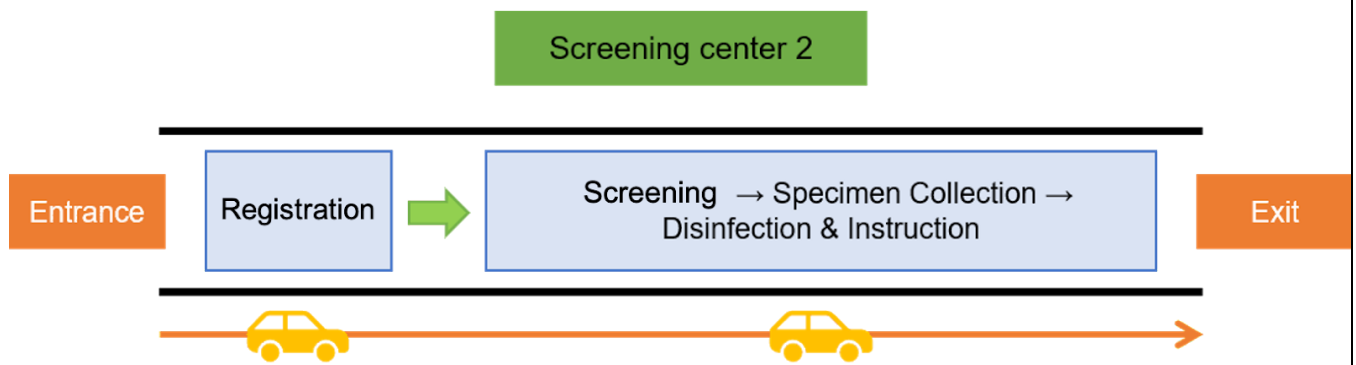


<Yeungnam University Hospital Case>

<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

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

❖ 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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