



Guide

on Active Epidemiological Investigation for Public Health Nurses In Response to **COVID-19** in Japan

Regarding this guide

This guide is aimed to support Public Health Nurses (PHNs) who are working on active epidemiological investigation for COVID-19, especially for those who have urgently been placed as support.

Based on “Guidelines on conducting active epidemiological investigations for COVID-19 patients” published by National Institute of Infectious Diseases, this document describes the rationale of identifying clusters through active epidemiological investigations as well as key points in conducting the survey. Please use this document along with the Guidelines.

“Guidelines on conducting active epidemiological investigations for COVID-19 patients” by National Institute of Infectious Diseases

URL: <https://www.niid.go.jp/niid/ja/diseases/ka/corona-virus/2019-ncov/2484-idsc/9357-2019-ncov-02.html>

Quick guide

- P3:** When the cluster response is positioned in active epidemiological investigation
- P5:** The steps and overview of active epidemiological investigation
- P7:** The key points and what to keep in mind when conducting hearings for confirmed cases
- P12:** How to handle persons who have been in close contact with infected individuals

Table of Contents

1. Position of cluster response in active epidemiological investigation	3
2. Aim and steps of cluster response in active epidemiological investigation	5
3. Tips for interviews	7
4. Handling of persons who had close contact with COVID-19 patients	12
Appendix 1: Mental care for persons who are involved in active epidemiological investigation	18
Appendix 2: Guideline for active epidemiological investigation for COVID-19 patients	19



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1. Positioning of cluster response in active epidemiological investigation

1-1. Characteristics of COVID-19

In Japan, We found that most COVID-19 patients (confirmed cases) are not generating secondary cases (confirmed cases). We revealed that only about 10-20% of all patients are generating secondary cases (confirmed cases). This means that most cases do not infect others, while some of the patients infect many others.

Why is the disease spreading if most of the infected individuals are not infecting others?

infected person 1 not infecting anyone

infected person 2 not infecting anyone

infected person 3 not infecting anyone

infected person 4 not infecting anyone

infected person 5 infecting 10 people

$R_0 = (0+0+0+0+10) \div 5 = 2$

Unless 1 person is infecting many while most are not infecting anyone, the spread of the disease CANNOT be explained.

We defined "cluster" as group of >5 infected individuals that have been connected from cases without known epidemiological links.

1-2. Why is cluster response necessary?

Major community transmission occurs from chain of clusters or mega clusters, generating high volume of secondary transmissions. As such, the key to prevent increase in transmissions is a prompt identification of clusters of cases that have occurred within a region and appropriate response.

1-3. Under what conditions do clusters occur?

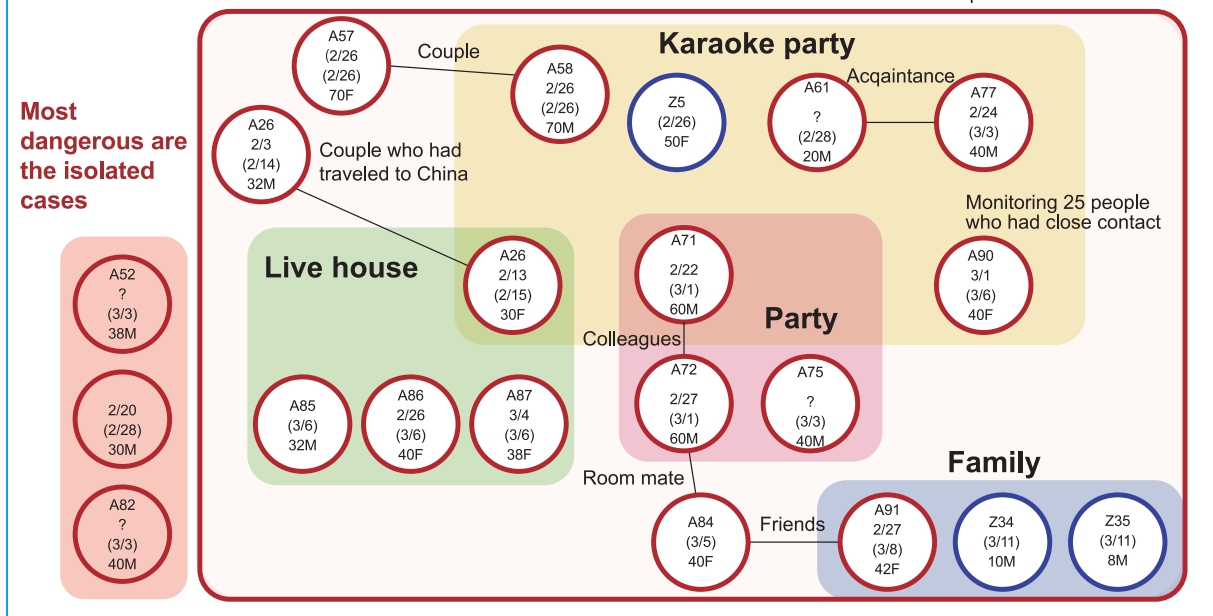
Cluster occurrence risk is higher where the 3 conditions occur simultaneously

3C Conditions (closed, crowded, close contact)

- Loud voices
- Singing
- Activities that increase breathing
- Close contact with multiple people

Example: a karaoke party cluster

Confirmed 2020/3/15 18:00
Updated 2020/3/12 15:00



- Chances of forming clusters does not correlate with severity. In fact, the asymptomatic cases are likely to be more active and increases the likelihood of forming clusters.
- Majority of people identified in clusters had only mild symptoms such as sore throat and slight fever
- It is possible that broader transmission outside of the expected distance (1-2m) happens in closed environments.

Please conduct interviews with understanding of the virus' nature that anyone can be infected without knowing and they can infect others before knowing that they had been infected.

Source: Hitoshi Oshitani, "Overview of Response to COVID-19" Japan Society of Public Health COVID-19 Related Information Page URL: https://www.jhph.jp/covid/files/gainen_0402.pdf

2. Aim and steps of cluster response in the active epidemiological investigation

2-1. Aim of the active epidemiological investigation

- Identify clusters by making presumptions on source of transmission/mode of transmission.
- Create a foothold by identifying persons who had close contact with infected individuals and could be the source of the next cluster.

By isolating patients (confirmed cases) and those who have had close contact with them, further chain of transmissions can be contained.

- Collect information about patients (first hand) and get it organized.

Sufficient and detailed clinical symptoms and behavior record between before becoming symptomatic and after becoming symptomatic and getting tested for confirmed cases becomes the starting point of the active epidemiological investigations.

2-2. Steps for the active epidemiological investigation

1. Check for incidence report

- Check to see if the case had an identified/assumed contact or connections among patients
 - » Facility transmissions at healthcare facilities and nursing care facilities for elderlies, etc. will have different response method. Check for appropriate response based on rules put forth by each municipality.
- Evaluate and estimate transmission risks from patient's age, sex, background (job, residence, range of activity, lifestyle, etc.).
- There are cases where you would not be able to check for an incidence report and would need to conduct interviews solely based on incidence information. It would be good to think through what information needs to be collected prior to conducting the interview.

2. Decide how to communicate with patients

- Decide on interview method (in person, phone, etc.). Consider the risk of transmission and conduct phone interview as much as possible. If it needs to be done in-person, implement prevention measures for contact and droplet transmissions. (check Appendix 2: Refer to guideline for active epidemiological investigation).
- Check where the patient is (self-isolating at home, hospitalized, somewhere else other than home, etc.).
- There may be reasons, such as severity of symptoms (moderate to severe symptoms), that prevents patients from being interviewed. Check to see who might be available to be interviewed (someone who is aware of the behavior record of the patient).

3. Conduct interview with patient (or families, etc.) and enter into necessary survey forms (check Appendix 2: Refer to guideline for active epidemiological investigation)

Paperwork that need to be completed (do not aim for 100%, speed is important)

Survey form 1: patient information (basic information, clinical information)

- Focus on necessary information and interview while giving considerations to patient's status.

Survey form 2: Behavior survey between 14 days before developing symptoms and diagnosis

- Make assumptions around source of infection (who), mode of transmission (where), exposure to risk factors (3C), and find clusters.
- Even if survey for the last 14 days isn't possible, be thorough in asking about "1 week before developing symptoms" which is when the risk of transmission is higher.

Survey form 3-1: Behavior survey after becoming symptomatic (guidelines published on April 20th has revised this to 2 days before becoming symptomatic).

- Changes in symptoms, whether or not if they have come into contact with others and how close the contact was, and identifying those who had close contact (list them on **Survey form 3-2**).

Survey form 1, 2, 3-1, and 3-2 are available on "Guidelines on conducting active epidemiological investigations for COVID-19 patients" published by National Institute of Infectious Diseases (<https://www.niid.go.jp/niid/ja/diseases/ka/corona-virus/2019-ncov/2484-idsc/9357-2019-ncov-02.html>)

Q&A:

when you are perplexed about a judgment, when you don't know what to do

Part1: Regarding patient and their families' words or health/emotions at time of interview

Q1. If you receive abusive language or complaints from the patient

Sometimes, patients and their families may take out their anger or dissatisfaction on you. When they are angry, they are not angry at the PHN. When a patient or a person who had close contact is showing anger, do not condemn or deny them, and accept their emotions. Once you have shown sympathy, ask what specifically they need help with.

Prior to visiting patients, agree on steps to take if or when this occurs (example: switch with a male staff, show help card, etc.). Abusive language and complaints could be as a result of emotional confusion. In such case, take a deep breath and calm yourself down to handle the situation. Please do not try to take it all on yourself and handle it as a team.

Q2. If patient asked to cancel the interview because of their health condition

Let's always remember that pneumonia could be causing difficulty breathing, slug-gishness, or high fever. Long interviews will increase stress on both your mental and physical health. Do not attempt to collect all information, but rather, see things from the patients' perspective and ask questions. If they ask to cancel, decide on additional information collection method or date and do it another time.

Q3. If patient is experiencing deep sadness (suddenly developed severe symptoms, or handling families of deceased patients, etc.)

It is natural to cry when experiencing loss of something important or someone important. Rather than providing a superficial encouragement or consoling, it is important to listen and empathize. However, it is also important to accomplished the purpose of the interview. Do not try to resolve everything right there and then, but handle the situation by introducing ap-proprate support, etc.. Do not get too close to their emotions and maintain a healthy distance.

3. Tips for interviews

Questions should be based on each municipalities specific response policies. Please use this to prevent from forgetting to ask certain questions or leaving something out.

1. Basic principles

Importance in building trusts

In behavior survey, there are times when you have to discuss things that people may not want to talk about and keep as secret. It would be important to develop trusts within the limited time and given situation.

Understand the situation the patients are put in

There are cases where time has passed between developing symptoms to getting tested or between getting tested to getting a diagnosis and memory becomes hazy. There are times when they may not be in best health conditions and cannot take sufficient time to do the interview. There are also times when they may have strong opinions (criticisms or complaints, concerns) regarding testing or access to healthcare and may express them.

Ask for cooperation while sympathizing with their concerns within the limited time available

Show empathy, such as “that must have been difficult” or “it is very worrisome what could happen going forward”, and ask for cooperation as much as their health allows them.

2. Items to request (introduction)

- I am XXX (name) with XXX (affiliation). How are you feeling?
- I would like to ask you questions today about your recent activities. Identifying where you could have gotten infected would be extremely important to prevent the increase in transmissions going forward. Let's all work together to prevent the virus from spreading.
- Let me ask you about who or where you might have contact. We would not contact any persons of facilities without your permission. I would like to discuss with you at the end how to explain to them and how to contact.

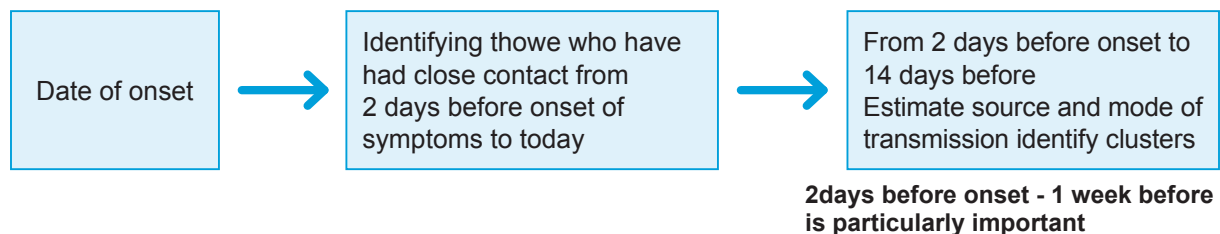
3. Identifying the date of onset and progress of conditions

Depending on “when you have had changes in your health condition”, what days I would like to ask you about your activities will be different. So first, please tell me what date was the first date when you developed symptoms. The following are examples of the symptoms. What was the date when you began seeing these symptoms? What kind of symptoms were they? How have your symptoms changed from then?

Fever (higher than usual, even if lower than 37.5 °C), cough, sluggishness, sore throat, runny nose, stuffy nose, headaches, diarrhea, joint pains/muscle pains, nausea, redness of eyes, abnormality in sense of taste

By listing specific symptoms, there may be a light bulb moment when the interviewee may remember something and provide new information. Identifying the date of onset of symptoms will determine the scope of interview, so do it very carefully.

4. Steps in interviewing



We are trying to attain information on both people who have had close contact as well as you (patient) starting from 2 days prior to onset of symptoms. I will ask questions by using “MM/DD (weekday), when first symptoms appeared, as date of onset”.

First, I will ask about (1) MM/DD (weekday) (2 days before onset) - date of interview.

Next, I will ask about (2) MM/DD (weekday) (2 days before onset) - MM/DD (weekday) (14 days before onset). If you remember something in the middle of the interview, please do not hesitate to tell me even if it's not in the order.

» *Do not go through questions rapidly one after another, but verbally acknowledge that you are listening and repeat things back to the interviewee. Once the interviewee understands how the interview goes, they may begin to tell the story in order themselves.*

[1] Activities between 2 days before onset and now: identifying those who had close contact Who is “those who have had close contact”

“People who have had close contact” are those who had contact with a patient (confirmed case) during the infectious period the following criteria (from guidelines)

- Have been living with patient (confirmed case) or have had prolonged contact (including riding in a car or airplane, etc.)
- Have treated, nursed, or cared for a patient (confirmed case) without appropriate personal protective equipment
- Have high likelihood of having come into direct contact with patient's (confirmed case) airway secretions or other contaminants such as bodily fluids
- Other: Have been in contact for more than 15 minutes with patient (confirmed case) without necessary preventive measures in place at an arms length or face-to-face conversation distance (about 1m) (comprehensively judge infectiousness of patient from symptoms, etc.)

Check for others around them who are not in good health

- Was there anyone that you came into contact with that were not in good health between MM/DD (2 days before onset) - MM/DD (today)?
- Do you live with anyone? How is their health?

Activities associated with “3C/high transmission risk” environments

- I will ask whether you have gone to any locations or environments that are “3C/high transmission risk” between MM/DD (2 days before onset) - MM/DD (today).

Check! Refer to P9, “Environments and activities in high risk of transmission/3C scenes”

Check where they work/study

- Where do you work? (what school do you go to? Do you have other part time jobs?)
- Does your employer/school know your current situation?
- I will now ask about your activities and who you may have come into contact with at your work/school.

Check! For tips on specific interview, refer to p10 “priorities based on situation”

[2] Activities between 2 days before onset and 14 days before onset: Find the source/mode of transmission, identify clusters

Check for contact with high infection risk environment

- Let me ask you about your recent activities related to going to locations that are considered “high risk of transmission/3C”. When did you use such facilities between MM/DD (2 days before onset) - MM/DD (14 days before onset)?
- Who else were with you? Have you heard if any of them have become ill since then?
- I would like you to especially remember activities between MM/DD (7 days before onset) until today. If you have calendars or e-mail/phone/SNS records, please have that handy so you can reference them. Recent memories are probably more lucid, so I will begin with the date of onset and go back in time. So first, I will ask about your activities on MM/DD (2 days before onset). What did you do that day? How about MM/DD?

Environments and activities in high risk of transmission/3C scenes

- If you are visiting in person to conduct the survey, visualizing the high risk environments using the following chart makes it easier to remember.

Dinner	Gatherings that include eating/drinking, Japanese style pubs (izakaya), pubs, dining bars, snacks, bars, night clubs, girls’ clubs, girls’ bars, buffets, etc.
Events	Concert houses, clubs, concert venues, theaters, opera houses, indoor sporting events (kendo, judo, etc.), festivals, comic markets, meet and greets, photo sessions, talk shows, seminars, study groups, exhibitions, etc.
Leisure	Gyms, karaoke bars, pachinko, mah jong, net cafes, manga cafes, arcades, saunas, bedrock baths, yoga, off-the-clock gatherings, brothels, call girl businesses, etc.
Travel	Business trips, returning home, trips, tours, capsule hotels, hospital visits, nursing care facilities for elderlies
Other	Religious gatherings, PTA, townhall meetings, lessons, school events, camps, dorm life, share house or shared office, etc.

[Example 1] If the patient says they attended a dinner

Which date? Where was the location? How many people did you go with? Do you know how big the restaurant was, and how many people were there? Were you dining in a private room? Was your seat close to other patrons? How many hours did you spend there? Did you talk to anyone else other than those who you went with?

[Example 2] If the patient says they had been to a concert house

Where did you go? What was the maximum capacity at the venue, and how many people were there? What time did you arrive? How long were you there for? Were you surrounded by people you know? Was there a photo session or a meet and greet? Did you meet up with anyone before and after the event and have a meal together? Do you know the schedule of those who were there with you?

Priority based on situation

<input checked="" type="radio"/> Must be asked <input type="radio"/> Ask if possible <input type="radio"/> Ask if there is time	
<p>Work related</p> <p>If there are health support centers at your workplace of employment, it may be possible to ask your work about the details of your activities for your time during work hours. In such cases, please prioritize other items.</p>	<ul style="list-style-type: none"> <input checked="" type="radio"/> Where do you work? Where is it located? <input checked="" type="radio"/> What is your job? (mostly desk work, making phones, visit clients, etc.) <input checked="" type="radio"/> Who at your work is most familiar with your situation? <input checked="" type="radio"/> When was the last day when you went into work? <input checked="" type="radio"/> Do you have a health support center at workplace and have an occupational physician or an occupational health nurse? (if yes) Can we contact the health support center at your workplace to ask for the status of your workplace? (if no) Can you provide contact information for someone we could reach out to regarding the health status of your workplace? <input checked="" type="radio"/> Were there any major events between now and 14 days before onset of symptoms? <input checked="" type="radio"/> Even if many people do not congregate, are there areas where multiple people might get together, such as meetings or assemblies, lunch time cafeteria or break rooms? <input checked="" type="radio"/> Were there business trips for which you used bullet trains or airplanes? When? Where did you go? With whom? <input checked="" type="radio"/> Have you participated in exhibits or business conferences? <input checked="" type="radio"/> Were there anyone who seemed to be ill around you? <input checked="" type="radio"/> Do you have any part time jobs outside of your normal job? Where were you working?
	<ul style="list-style-type: none"> <input type="radio"/> Who were you with the most at work? <input type="radio"/> When did you come into contact with external people (clients, customers, etc.) <input type="radio"/> Where were you eating lunch, and with whom? <input type="radio"/> Were there any welcome parties or farewell parties? How many people participated? <input type="radio"/> Do you use a changing room/break room? How many people use it? <input type="radio"/> (if you smoke) Where do you smoke when you are at work?
	<ul style="list-style-type: none"> <input type="radio"/> What is your commute route like? What time do you commute? <input type="radio"/> What are your typical work hours? <input type="radio"/> Between 14 days before onset and now, what days were your days off? <input type="radio"/> When you go out to meet clients/customers, do you use trains or a car? Do you ride in cars with other people? <input type="radio"/> When and in what kind of place did in-person meetings at work take place? <input type="radio"/> Is there a shared calendar that could show your activities?

School related	<input type="radio"/> Where do you go to school? Where is it located? <input type="radio"/> When was the last time you went to school? <input type="radio"/> Who would be the best person to contact if we were to reach out to your school? <input type="radio"/> Are you part of a team or an organization? When was the last time you participated in an activity with them? <input type="radio"/> Were there any major events where many people congregated at the school between 14 days before onset and today? <input type="radio"/> Were there anyone at school who appeared ill (such as coughing)? <input type="radio"/> Who were you with the most at school? <input type="radio"/> Who would best know your situation at the school?
	<input type="radio"/> When and in what kind of place (how many people in the classroom) were you participating in lessons/lectures? <input type="radio"/> Were there any seminars, labs, exercises, practice, or trainings? <input type="radio"/> (if you smoke) Where do you smoke when you are at school? <input type="radio"/> Where were you eating lunch, and with whom? <input type="radio"/> How frequently were you participating in clubs/organization related activities?
	<input type="checkbox"/> What is your school route like? What time do you go to school? <input type="checkbox"/> What are your typical school hours? <input type="checkbox"/> Between 14 days before onset and now, what days were your days off? <input type="checkbox"/> Are there club rooms/organization offices? When did you use them?
Part-time job related	<input type="radio"/> What is your part time job? Please describe specifically. (such as, retail, kitchen staff, cleaning, etc.) <input type="radio"/> How frequently were you going into your part time job? <input type="radio"/> When was the last time you went to your part time job? <input type="radio"/> Who were you with the most at your part time job? <input type="radio"/> Were there anyone who were ill at your part time job?
	<input type="radio"/> How big is the break room/changing room at your part time job and how many people use it? <input type="radio"/> (if you smoke) Where do you smoke when you are at your part time job?
Individual activities/lifestyle behavior	<input type="radio"/> When did you go out to eat? Did you go with anyone else? <input type="radio"/> Did you go to a healthcare facility, dentist, or a nursing care facility? <input type="radio"/> Was there someone you saw often or a place you went frequently?
	<input type="radio"/> Did you go shopping somewhere? <input type="radio"/> Did you go to a salon/barber/massage/acupuncture/esthetician?

5. Request to provide information

- Thank you for your cooperation even though you are not feeling very well.
- Is there anything that you “forgot to mention, and just remembered” at this point?
- From here, we will begin to check for people who may have gotten infected around the same time and are already symptomatic as well as those who are still asymptomatic, and ask them to refrain from going out and monitor their health based on the information you provided.
- Could you please share the contact information for those who had contact with you at XXX and XXX?

4. Handling of those who had close contact with COVID-19 patients

1. Basic principles (purpose)

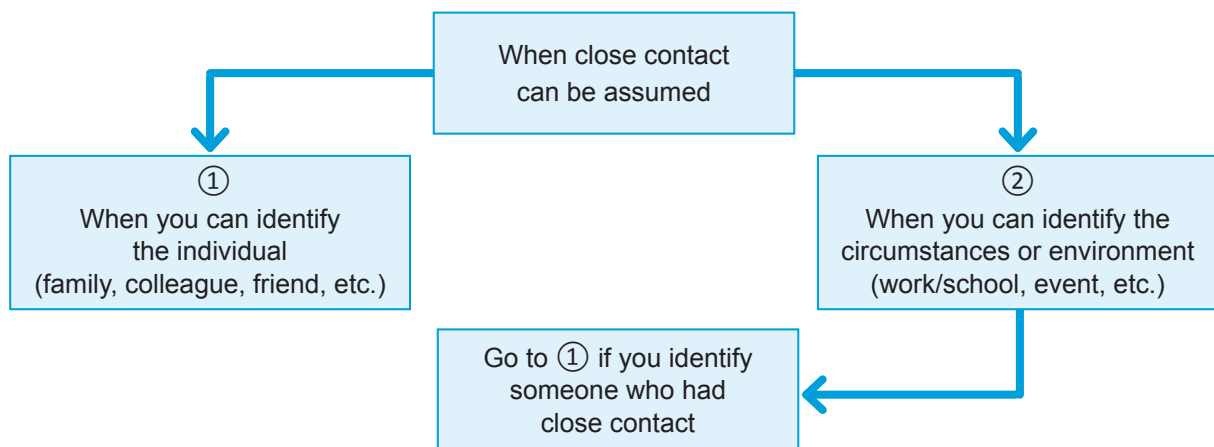
Request for health monitoring for persons who had close contact and to stay at home

Among those who had contact with the patient (confirmed case) before 2 days before onset, identify those who either live with the patient or have had prolonged contact (including those who could develop symptoms or already have symptoms) and monitor their health and ask to stay at home and isolate (local public health center will conduct health monitoring for 14 days).

Look for source of transmission and mode of transmission

Look to see if anyone could be identified in the patient's (confirmed case) surrounding as the source of transmission based on their activity record.

Interview should be conducted with the mindset to understand the overall environment surrounding the patient (confirmed case), such as whether the chains of transmissions could already be occurring, high transmission risk environment existed, who could have been in that environment, and if there may be people who have had close contact with the patient that may not have been able to be identified by the statement provided.



2. How to handle those who had close contact

When you can identify the individual

Preparation

- You will check if patient (confirmed case) has directly notified those who had close contact.
- You will understand the relationship and contact frequency/status between patient (confirmed case) and those who had close contact.

[If patient (confirmed case) has notified them directly already]

- You will check for the information provided by patient (confirmed case) or public health center responsible for that region.

Explanation

- You will confirm the contact record and explain that they have been identified as someone who has had close contact.

[If patient (confirmed case) has notified them directly already]

- As you have already heard from XXX (patient or public health center responsible for the region), I am contacting you because I was told that you had spent time for ____ (frequency, condition) with XXX.

[If patient (confirmed case) has not yet notified them directly already (or cannot contact)]

- Sorry to reach out to you out of the blue. I am XXX (name), a PHNs from ____ public health center. Do you have some time right now to talk?
- I am reaching out to you because there was someone who had been infected with COVID-19 among those you spent time with at ____ (contact details that you know, such as place, date, meeting/party etc.)
- Mr./Miss. XXX wanted to reach out to you directly, but they are not feeling very well, so we are reaching out to you on their behalf.

[For both cases]

- First, please tell me about your health status.

Priority based on health status

<input checked="" type="radio"/> Must be asked <input type="radio"/> Ask if possible <input type="radio"/> Ask if there is time	
Health monitoring	<ul style="list-style-type: none"> <input checked="" type="radio"/> How are you feeling today? <ul style="list-style-type: none"> <input type="radio"/> Temperature (whether or not they have a fever, is it higher than usual even if it isn't higher than 37.5°C) <input type="radio"/> Cough <input type="radio"/> Difficulty breathing <input type="radio"/> Sore throat <input type="radio"/> Sluggishness <input type="radio"/> Runny nose, stuffy nose <input type="radio"/> Headache <input type="radio"/> Diarrhea, nausea, vomiting <input type="radio"/> Joint pains, muscle pains <input type="radio"/> Redness of eyes <input type="radio"/> Abnormality in sense of taste [If they already have symptoms] <ul style="list-style-type: none"> <input checked="" type="radio"/> When did you begin having symptoms? <input type="radio"/> Have your symptoms gotten worse? Has it gotten better? <input checked="" type="radio"/> Have you sought help from someone, or seen a doctor? What did they say?

<p>Health monitoring</p>	<p>[If they have been to the Consultation Office for Returnees/People who had contact]</p> <ul style="list-style-type: none"> ☉ Whether or not they have had a PCR test <ul style="list-style-type: none"> If yes, check if they have gotten results. If no results yet, check when the results will be available. <p>[If they have not yet sought any help]</p> <p>Please handle in line with the manual provided by your local municipality keeping in mind that they have had close contact with a confirmed case.</p>
<p>Risk for developing severe symptoms</p>	<ul style="list-style-type: none"> ☉ Have you had any major diseases before? <ul style="list-style-type: none"> <input type="radio"/> Diabetes <input type="radio"/> Hypertension <input type="radio"/> Cancer <input type="radio"/> Cardiovascular disease <input type="radio"/> Smoking, COPD <input type="radio"/> Other diseases for which they are receiving treatment ☉ How is the status of that disease right now? (treatment details, how it is managed, etc.).
<p>Jobs that are at higher risk of transmission or chances of coming into contact with those who are at high risk for developing severe symptoms</p>	<ul style="list-style-type: none"> ☉ What do you do for a living? (healthcare worker, caretaker, restaurants, retail, etc.). ☉ Where do you work? Where is it located? ☉ Are you taking care of anyone? (do the ones they are caring for have risk for developing severe symptoms such as diabetes, high blood pressure, high cholesterol, asthma, cancer, cardiovascular disease, etc.). ☉ When was the last day when you went to work? <p>→ For those who are working in jobs that have chances of coming into contact with those who are at high risk for developing severe symptoms, if deemed necessary, they could be subject for testing.</p> <p>Check! Refer to guideline for active epidemiological investigation “handling of those who have had close contact”</p>
<p>Request 1.</p> <p>Monitor health for 14 days since the last contact</p>	<ul style="list-style-type: none"> • Going forward, I have 2 requests for how your activities until MM/DD (14 days since the last contact). • First, I would like to check your health status everyday via phone or e-mail (method will follow what is put forward by local municipality). <p>[If they ask why the health monitoring is necessary]</p> <ul style="list-style-type: none"> • We are worried about you developing symptoms. <p>[If they ask you about the possibility of transmission]</p> <ul style="list-style-type: none"> • Not everyone who has had contact with someone with the virus will get infected. There are cases where no one around a patient is infected.

<p>Request 1.</p> <p>Monitor health for 14 days since the last contact</p>	<ul style="list-style-type: none"> • However, there are also cases where a single patient has transmitted to multiple people. This is why we need to monitor you to make sure you do not become symptomatic. ⊙ Can we agree on a rough time that I can contact you every day? ⊙ Even if it is outside of the time that we agreed on, if you feel any concerning symptoms, please let me know. My phone number is XXX - XXXX - XXXX.
<p>Request 2.</p> <p>Refrain from going out</p>	<ul style="list-style-type: none"> • Second is to refrain from going out and staying home until MM/DD (14 days since the last contact). • One of the characteristics of this COVID-19 is that the relationship between “how severe the symptoms are” and “whether or not you can infect others” is unclear. In fact, there have been cases where someone with just a sore throat had infected many others especially since they were able to remain active. • Please stay at home so that we can minimize the risk of you infecting others and increase the transmissions. • I would need for you to contact your work/school. Do you have any concerns? <p>Check! Refer to “priority based on situation” on P10-11 for interviews by situation, such as work or school</p> <ul style="list-style-type: none"> • While you are staying at home, wash your hands, and use good cough etiquette (if you are living with others). <ul style="list-style-type: none"> » Wear a mask (cover mouth/nose) » Cover mouth/nose with a tissue/handkerchief » Cover mouth/nose with a sleeve • If you have to leave home, please refrain from using public transit and wear a mask if you have one. <p>[If it is really difficult to get their cooperation to stay home]</p> <ul style="list-style-type: none"> • A good example was the crew and customers on the cruise ship and people who came home on chartered airplanes. By isolating while monitoring their health for 14 days after they have had contact with patients and avoided contacting others, the transmission did not spread. (Other: healthcare facilities in Wakayama, concert house in Osaka) <p>[If they are seeing the patient (confirmed case) as the perpetrator and seeing themselves as the victim]</p> <ul style="list-style-type: none"> • XXX and everyone else all got the virus somewhere through contact. No individual is in the fault. <p>[If they ask about key things to remember for family members] MHLW “If your family member is suspected of having COVID-19 What to be careful in the household” https://www.mhlw.go.jp/content/10900000/000601721.pdf</p>

Collect additional information

- ⦿ Were there others present when you were meeting Mr./Miss. XXX? (or when you were around Mr./Miss. XXX at the time that you were at ___?)
- ⦿ Within the last 14 days, have you been at an event where many people were in attendance?
- ⦿ Within the last 14 days, have you been overseas?
- » Check for contact with high risk environment referencing P10-11 based on the subject.

Sharing information

- Information on symptoms of people who have had close contact and others who had contact should be relayed to the public health center responsible for the region where the patient (confirmed case) resides so that all information can be aggregated.

Cases/organizations for which location or environment can be identified (people who had close contact will be selected later)

Cases where information on patient (confirmed case) will be disclosed (work, school, etc.)

Preparation

- (To the patient (confirmed case)) Please tell me the contact information, organization, and name of someone who would be the point of contact. The point of person is typically someone who works in the health office (occupational physicians, occupational health nurses), HR, BCP department, or your direct manager (for students, often student affairs or school's consultation office). Going forward, we may need to contact them multiple of times and aggregate information, etc. so it would be ideal to get in touch with someone who we could have smooth contact with.
- Please inform them that the public health center will be in touch with them.
- Public health center is planning to reach out to them on MM/DD.

Explanation/investigation

- (To the contact person) As you may have already heard from Mr./Miss. XXX, it has been confirmed that Mr./Miss. XXX has been infected with COVID-19. As such, we are reaching out to their work/school to understand who they may have had contact with and the health status of people around them.
- Please let us visit you on-site and ask about contact.
- When we do so, please provide the seating chart. Also, please list up the names of persons and how that contact occurred between MM/DD - MM/DD as well as their current health status (whether or not they have symptoms).
- From Mr./Miss. XXX, we have been told that they had contact with Mr./Miss. XXX, but please check to see if others have had contact. Mr./Miss. XXX said that the person who would likely know their activities the best would be Mr./Miss. XXX.

Check! Refer to "Work related" for priorities based on situation on P10 for interview items

- » It is best to prepare and distribute documents on requests, process of investigation, and sanitization.

Identifying people who had close contact/responding to work place

- Based on information on contact, Mr./Miss. A, B, and C have had close contact with a patient. Since the last date of contact, which was MM/DD, we thank for you co-operation by allowing them to stay

home and monitor health through 14 days after the last date of contact, which will be MM/DD.

- For those who have had close contact, we will let you know how to reach them after we provide information to the public health center in the area where the patient (confirmed case) is residing. When doing so, we will ask more specifically about Mr./Miss. XXX who has symptoms.
- Sanitizing of the building and facilities should be done using cloth with alcohol, etc. mainly where people touch and where droplets could have been dispersed.
- For now, the public health center will not issue guidance to close down the facility based on the fact that the patient (confirmed case) began showing symptoms there.

Cases where patient (confirmed case) information will not be disclosed

Explanation

- (For contact person) We have found that someone who uses your facilities have been infected with SARS-CoV2. Due to the patient's wishes, we cannot disclose their name, but we do know when they used your facilities. Can we check the facility and use status by coming directly on-site?
- If you can identify people who were using your facility between XX:XX~XX:XX on MM/DD, please list them up. If you cannot identify, please provide roughly how many people might have been there.

Deciding how to respond

- Please notify those people who were using the facilities around XX:XX about the potential contact with an infected person. If contact is not known, please consider posting at the entrance of your facility.

Q&A:

when you are perplexed about a judgment, when you don't know what to do

[Part 2: Regarding contacting person who had close contact, etc.](#)

Q4. If they refuse to disclose contact information

Please ask for their cooperation by saying, "By knowing that there is a possibility that you have been infected, you can refrain from contacting people, monitor health, and change behavior to reduce increase in transmissions. Please share the contact information so that correct information could be shared and stop the chain of transmissions." Please also let them know that the information will be handled with utmost care.

Q5. If they are OK with disclosing contact information but do not want their name disclosed

Please let them know that it is difficult to identify the people who have had contact without disclosing their name. If they still refuse, ask for specific time and date of use and location by asking "we can keep your name discreet to the facility, but will you help to narrow down the people who may have had contact."

Q6. If they ask for the public health center to not reach out to people who had close contact

Say things like "Would you be able to reach out to them directly, and ask to (1) refrain from going out, (2) reach out to XX as soon as their health condition changes, and keep in close contact? We can monitor their health through you and ask for necessary information" and creatively ensure that your contact with them remains in tact.

Appendix 1:

Mental health care for PHNs who are participating in active epidemiological investigation

Getting a lot of information from someone who you have never met directly (or someone who you are meeting for the first time) takes a lot of time and effort. Thank you so much for your hard work. It must be extra stressful to not be able to take time and trying to prevent rapid increase in transmissions while you might be able to do this with ample time during normal times. Please take care of yourself so that you can be in good condition tomorrow.

■ Self-care

PHNs, who are supporters, are also in the same situation as patients and families

In the midst of working on infectious disease response, there is a lot of confusion and stress. PHNs will be impacted by stress and is easy to be affected both mentally and physically.

Self-care method

PHNs should know how to “self-care” so that they can prevent stress responses and effectively support the efforts in infectious disease prevention.

Check!

- If you see signs of stress, don't be ashamed and admit to the feelings and what you are finding stressful.
- Pass on your responsibilities once you have reported your investigation and facts quickly.
- Positively evaluate your work... find meaning in your work.
- Talk among your team about what you have heard and how you are feeling about them.
- Don't try to do everything yourself. Know your limits, work with your team, and support one another.
- Take breaks. Stretch. Take a deep breath.
- Cherish the time you can spend with friends and family and rest up when you can.
- Think about how you may have grown through this experience.
- If you feel that your stress level is too high, are drinking more than usual, are feeling like you have to drink, or are experiencing careless mistakes or feel that you are more easily distracted and suffering from remembering things, those are signs that should not be ignored. Take a break or talk to an expert.

■ Organizational response

Clarifying roles and rotations

Clarify term of work, switch timing, responsibilities, and tasks for PHNs who are essential support staff.

Educate regarding stress on PHNs who are also supporters

It is important to educate the organization and workplace that stress that PHNs feel should not be an individual responsibility but rather something that should be handled as a team. No matter how busy it gets, try to foster a work environment that ensures that they are taking breaks regularly, talking to one another, and supporting each other. Have meetings when possible and create opportunities where small groups can hear opinions so that stress from work can be addressed.

Educate regarding residents' emotional response

Educate staff ahead of time that it is possible that anger might be directed towards them as a result of emotional response from residents.

Put value to the work

Someone within the organization with authority should clearly recognize the value of this work and thank the work that has been done.

Source: Tokyo Bureau of Social Welfare and Public Health, Mental Care guideline in disasters (May 2008) revised)

URL: https://www.fukushihoken.metro.lg.jp/tamasou/sonota_jouhou/saigaitaisaku.files/saigai.pdf

Appendix 2:

Active epidemiological investigation guidelines for COVID-19 patients

National Institute of Infectious Diseases, Infectious Disease Surveillance Center
April 20, 2020 ver.

Introduction

This document was created for public health centers to conduct active epidemiological investigations quickly based on laws around infectious disease prevention and care for patients of infectious diseases for COVID-19 patients (confirmed cases) that have been identified domestically.

In the “Basic Policy on COVID-19 Response (February 25, 2020)”, it was deemed that there has to be a response measure for isolated cases that are occurring and are not linked to a known cluster around the country. In addition, in “Status of analysis and recommendation on COVID-19 Response (March 19, 2020)”, it was emphasized that in parallel to early identification of clusters, “citizens’ behavior change” in accordance with each region’s status and “refraining from activities” especially for those activities that are at higher risk would minimize the chain of transmissions and would help to bring each regions’ trans-missions under control.

Overview of Cluster Response for COVID-19

Cluster Response that have been implemented in various parts of the country is centered around retrospective survey in identifying source of transmission and identifying those who had close contact and monitoring (limiting activities), which are both traditional methods. If the source of cluster is obvious and listing up the people who had close contact is easy to do, clusters will occur in an already limited scope, thus will not lead to further chain of clusters.

However, SARS-CoV2, which causes COVID-19, causes many asymptomatic and cases with mild symptoms, especially among younger generations. This makes it so that invisible clusters can occur undetected and widely. It also makes it so that once such invisible clusters jump to high risk populations, such as the elderly, there is a risk that large mega clusters could occur simultaneously. That could be a major threat to public health and healthcare. Increase in patients will likely occur regionally or at a city level rather than nationally. This means that it would be important for regional and metropolitan public health centers and municipalities to be prepared, analyze the trends of this infectious disease, and confront this disease.

If patients occur (especially ones with severe symptoms) at the scale that could compromise the healthcare system of the region, or that is a possible outcome, regional social activities must be shut down and disable person to person transmissions forcibly; meaning, a measure must be implemented to enforce social distancing. Under such measures to cut off modes of transmissions, cluster busting to cut off each cluster do not make much sense. However, once the level of new cases decline to a certain level, cluster response should be reimple-mented.

As of end of March, 2020, cases of COVID-19 is rising globally. In many countries, the number of cases are seeing an upward trend. Going forward, even if domestic cases are under control and new cases begin to decline, new clusters could form originating from imported cases. This means that cluster response measures are necessary as long as there is COVID-19 some-where in the world.

Positioning of this document

This document is an explanation of active epidemiological investigation which should be implemented when cluster response is still meaningful. Meaning that, this is for when “isolated cases are occurring with unknown links to clusters and in some regions there are small scale clusters” “before massive increase in number of cases or after the number of new cases decline below a certain level”.

This document will provide information on identification and handling of patient clusters as indicated by earlier overview. In addition, it also changed the definition of infectious period to the following for patients (confirmed cases) related to those who had close contact:

- Period between 2 days before symptoms (suspected COVID-19 symptoms such as fever, acute respiratory symptoms such as cough and difficulty breathing) through beginning of isolation
 - » Fever, cough, difficulty breathing, sluggishness, sore throat, runny nose, stuffy nose, headache, joint/muscle pains, diarrhea, nausea, vomiting, etc.

How to think about the active epidemiological investigation

Each municipality should be able to implement active epidemiological investigation efficiently, identify individual patients and find clusters to determine the source of transmissions, know and manage those who had close contact (enclosure), or implement measures to ask to stop operation of high risk facilities or ask to refrain from high risk activities so that next cluster chain can be prevented and stop transmissions with support of experts of Cluster Response Taskforce put in place by MHLW on February 25 and experts from National Institute of Infectious Diseases.

Contact person at municipalities for COVID-19 response support will be centralized under the Cluster Response Taskforce for a while, but request for support and coordinating for local epidemiological survey will continue to be also done through NIID Infectious Disease Surveillance Center and FETP (Field Epidemiological Training Program). NIID and Cluster Response Taskforce will closely collaborate and work to contain transmissions as quickly as possible.

Definitions

- “Patient (confirmed case)” is someone who was “suspected of having COVID-19 based on clinical symptoms and was diagnosed as COVID-19 through diagnostic testing”
- “Patients with similar symptoms” is someone who was “suspected of having COVID-19 based on clinical symptoms and was diagnosed to have non-COVID-19”
- “Infectious period for patients (confirmed case)” is 2 days before onset of suspected COVID-19 symptoms such as fever and acute respiratory symptoms such as cough and difficulty breathing through beginning of isolation.
 - » Fever, cough, difficulty breathing, sluggishness, sore throat, runny nose, stuffy nose, headache, joint/muscle pains, diarrhea, nausea, vomiting, etc.
- “Persons who had close contact” is those who meet the following criteria among those who came into contact with “patient (confirmed case)” during the infectious period
 - » Have been living with patient (confirmed case) or have had prolonged contact (including riding in a car or airplane, etc.)
 - » Have treated, nursed, or cared for a patient (confirmed case) without appropriate personal protective equipment
 - » Have high likelihood of having come into direct contact with patient’s (confirmed case) airway

secretions or other contaminants such as bodily fluids

- » Other: Have been in contact for more than 15 minutes with patient (confirmed case) without necessary preventive measures in place at an arms length or face-to-face conversation distance (about 1m) (comprehensively judge infectiousness of patient from symptoms, etc.)
- “Patient cluster” is group of patients who could potentially lead to series of clusters (continuous chain of clusters) and could lead to a mega cluster. Up to this point in Japan, not all infected persons have created secondary transmission cases. About 10~20% of all patients are likely contributing to occurrence of secondary transmissions. Based on this knowledge, early identification of this cluster and responding quickly is the key to prevent increase in transmissions.

Subject of active epidemiological investigation

- Those who will be subject of active epidemiological investigation are “patients (confirmed cases)” and “Persons who had close contact”. If the likelihood of “patients with similar symptoms” becoming a confirmed case is high, assume that they will become a confirmed case and consider them a subject for active epidemiological investigation.
- For some reason, if someone is prescribed a diagnostics test while having no symptoms and were deemed to be “asymptomatic pathogen carrier (do not have clinical symptoms but was diagnosed as COVID-19 through a test)”, based on sample collection timing and epidemiological information, evaluate the likelihood of developing symptoms as well as the size of impact of transmission for those who had come into contact. Then determine the necessity of contact tracing on a case by case basis.

Understanding regional transmission status

- Public health centers will analyze information such as reports of “patients (confirmed cases)” or “patients with similar symptoms”, number of consultations at Consultation Office for Returnees and People Who Had Contact, and information on people who came back from abroad so that they can assess the cluster occurrence risk for that region.
- Understand the number of PCR tests, number of confirmed cases, trend in positive rate, and number of isolated cases without known links to other clusters at municipalities. Especially the rate of isolated cases without known links is important. When this rate becomes high, the cluster risk in that region is becoming high, and will be considered as high importance region for cluster response.
- Also it would be important to understand the COVID-19 occurrence across the country and compare commonality across various regions. By aggregating virus information broadly for genome analysis that is being conducted by NIID Genome Analysis Center as part of administrative investigation, it could be useful in explicating epidemiological links.
- The guidance to reach out to Consultation Office for Returnees/People Who Had Close Contact will be as follows as of February 17:
 1. Have cold symptoms or fever above 37.5°C has lasted for more than 4 days (including those who are taking antipyretics)
 2. Have sluggishness or difficulty breathing
 3. Have high risk of developing severe symptoms (elderly, people with underlying conditions such as diabetes/heart failure/respiratory diseases, people who are on dialysis, people who are using immunosuppressants or anti-cancer drugs) and symptoms in 1) and 2) persists for more than 2 days

Investigation details

- Collect necessary information such as basic information, clinical information, suspected source of transmission, people who had contact, etc. (Survey form 1, 2, 3-1, 3-2)
- For suspected source of transmission, when there are multiple “patients (confirmed cases)”, search across shared exposure source, identify risk factors of transmission, and implement appropriate measures to prevent increase in transmissions (including warning those who may have been exposed from common source).
- As you search for “people who had contact” with “patients (confirmed cases)”, if there are those who have higher risk of developing severe symptoms among candidates (example: elderly, immunocompromised, etc.), “patient (confirmed case)’s” activity record needs to be examined more carefully.
- In estimating the source of transmission, from the viewpoint of identifying patient cluster, it should be assumed that there are clusters around isolated cases, especially in regions where there are multiple isolated case. Then investigate common exposure sources retrospectively. The necessity of this cannot be overstated. This is directly connected to not only that region, but also Japan’s containment of increase in trans-missions.
- In order to conduct active epidemiological investigations, subjects need to be narrowed carefully based on information on “patient (confirmed case)’s” activity survey. Especially those who were involved in activities that have multiple people talking (singing or chatting, etc.) in a closed environment, including face to face, for some amount of time (crowded), in closed poor ventilated space, are more at risk of creating secondary transmission cases.
- As examples of such spaces, concert houses, boats, gyms have been named. Contact within such indoor spaces will be investigated thoroughly for cases in addition to more traditional healthcare facilities, social service facilities, work places, and schools.
- However, in order to optimize and reduce burden of those who are conducting the survey, information on risk factors that become available every day will be shared by Cluster Response Taskforce and NIID proactively to make the investigation more efficient.
- As we work to prevent cluster chains as a nation, families and others who are household members of “patient (confirmed case)” among “those who had close contact” and had prolonged contact period may need to be just asked to monitor health and refrain from certain activities, and public health centers may need to preserve their capacity for investigation for identifying other patients’ clusters. Experts from NIID and COVID-19 Cluster Response Taskforce can support with evaluation and provide advice.
- For “people who had close contact” who are subject of investigation as “patient (con-firmed case)”, health should be monitored with extra caution for 14 days of infectious period starting with the date of exposure. As a prospective follow up, ask to contact the public health center prior to going to a hospital if symptoms such as fever, respiratory symptoms, or sluggishness begin to occur. (Survey form 3-3)
- For the daily follow up of “people who had close contact”, operation necessary between public health center and subject when contacting should be simplified as much as possible and reduce burden. (Example: instead of phone calls, use email)
- “People who had close contact” would be considered as survey subjects if they develop a fever or respiratory symptoms. This would be symptom development for someone who is at high risk of transmission. Since the goal is to contain transmission at the cluster level, regardless of the severity of symptoms, necessity of testing would be judged by the treating physician.

- As a general rule, “people who had close contact” but are asymptomatic who are under health monitoring would not be subject for COVID-19 testing (exemptions will be noted later). Health monitoring will be done with measures to reduce transmission risk in place, such as isolating at home.
- If you are going to test those who are asymptomatic, it should be explained to the subject that the test would not directly translate to a response measure because even if the virus is present, it is not known at what timing it could be detected, negative test result does not rule out infection, and further measures to reduce transmission risks must be continued such as staying at home and monitoring health status. It is important to gain understanding for reasons why testing may not be carried out. It should be noted that for “people who had close contact” and are at higher risk of developing severe symptoms, their health status should be monitored closely.

Preventive measures for transmission during investigation

- If face to face interview is to be conducted by a PHN conducting active epidemiological investigation, it is necessary to wear a surgical mask and ensure appropriate hand washing, etc. is done.
- If interview must be conducted to a subject who has symptoms such as a cough, get the patient to wear a surgical mask. In addition to the surgical mask and hand washing, the PHN should also wear eye protective gear (goggles or face shield).

Handling of people who had close contact

- Public health center should issue guidance that people who had close contact should follow good cough etiquette and hand washing during the period when their health is monitored and to pay attention to their health status. Avoid going out unless essential. If they must go out, ask to avoid public transit. Also ask to wear mask when going out and make sure to keep hands sanitized.
- As mentioned above, as a general rule, “people who had close contact” but are asymptomatic who are under health monitoring would not be subject for COVID-19 testing. However, if the “person who had close contact” is a healthcare worker or working in jobs that has contact with high risk populations and would necessitate the evaluation of transmission status or if clusters are occurring in succession and epidemiological survey is deemed necessary, they could become subject to testing.
- Those who are living with “people who had close contact” should be told to wear masks and sanitize hands.
- Refer to “*If you suspect COVID-19 for your family Things you need to be aware - 8 key points -*” <https://www.mhlw.go.jp/cotent/10900000/000601721.pdf>
- Discarding trash and washing linens and clothes for those who had close contact should be done as usual.
- If someone who had close contact has a small child, refer to “*How to deal with students who have come from abroad due to COVID-19 (as of 3/26) (notice) (March 26, 2020)*” released by Ministry of Education https://www.mext.go.jp/content/20200326-mxt_kouhou01-000004520_3.pdf
- To ship samples from healthcare facilities, refer to “*Manual for sample collection/shipment for 2019-nCoV (SARS-CoV2) infection*”