

Response to infectious diseases and acute gastroenteritis

Institute for Marine-Earth Exploration and Engineering

Research Vessels Operations Department

Chikyu Operations Department

2025/8/7

Basic approach to response

- Following the COVID-19 outbreak being classified as Category 5 in May 2023, free vaccination drive ended in April 2024, and COVID-19 is no longer differentiated from influenza in terms of government's response. Thus, the response to both viral infections will basically be the same.
- Following from above, isolation of unwell person on board, suspected of infection, will continue, but the persons who were in close contact with unwell person will not be identified or screened, in principle.
(※p.7 Supplementary reference) 。
- This document also describes how to respond to acute gastroenteritis.

Response beyond 2025/8/7 (before cruise)

- It is recommended that you monitor your health before boarding/visiting the ship.
- If you have any concerns about your health, please contact MarE3* (via chief scientist if you are scheduled to board).
- If you are infected with an infectious disease at the time of boarding/visiting, or are suspected of having one, you should only board/visit the ship after receiving a doctor's diagnosis that it is OK for you to board/visit.
- MarE3 recommends that an isolation room be secured onboard, but the final decision is up to the chief scientist.
- It is recommended to think in advance about alternative persons in case of an emergency (not just infectious diseases) (if necessary and possible, replace the concerned person quickly).

*Contact :

Chikyu: Chikyu Operations Department, Drilling Management Group (mare3-drlg@jamstec.go.jp)

Other ships: Research Vessels Operations Department, Fleet Operations Group (mare3-fleetops-kan@jamstec.go.jp)

Response beyond 2025/8/7 (during cruise)

- Anyone on board who is unwell and suspected of infection will be isolated, and the infection will be identified using an antigen test kit.
- Even if a person tests positive for COVID-19 and/or influenza, identification and screening will not be conducted, in principle, for the persons who were in close contact of infected person, but they will be required to wear masks, and surrounding objects will be disinfected.
- In the case of influenza, medication will be administered.
- The isolation periods for COVID-19, influenza, and norovirus infections have been described in pages 10-11 and 13 of this document.
- For those who test positive for COVID-19 or influenza, strict infection control measures such as wearing masks will be taken for 10 days, counting the date of onset of symptoms (or the date of sample collection in the case of asymptomatic positive cases) as day 0, to prevent further spread of infection and the occurrence of serious cases (see pages 10-11).
- Those in close contact with infected person will be required to wear masks for the 7 days, counting the date of onset of symptoms (or the date of sample collection in the case of asymptomatic positive cases) as day 0. However, when working on deck or in the engine room, etc., mask wearing will be adjusted appropriately as necessary to prevent heatstroke (see page 12).

Response beyond 2025/8/7, Acute gastroenteritis

- Any person who is unwell and whose symptoms suggest he/she may have acute gastroenteritis will be isolated.
- An antigen test will then be conducted to attempt to identify whether it is norovirus infection, but even if the result is negative, the possibility of a false negative should be considered.
- Wherever possible, separate toilets should be used and disinfected thoroughly.
- With the exception of galley staff, unwell person may return to work at least 72 hours after the vomiting and diarrhea symptoms have subsided.
- However, in the case of norovirus, galley staff will refrain from cooking tasks that involve direct contact with food until a stool test confirms that they are not carrying the norovirus.

Response beyond 2025/8/7

Decision to continue voyage, etc.

- If an infectious disease spreads on board, the situation will be monitored before the ship calls (or returns) to port, and if the MarE3 department-in-charge determines that additional testing is necessary for the next voyage, it will be ordered when the ship calls (or returns).
- The decision on whether to continue the voyage will be discussed among the ship, the operator, the chief scientist, and MarE3 department-in-charge.
- If there is a possibility that the next voyage will be affected, the relevant parties will be contacted immediately.

✂ Supplementary information:

When screening is to be performed

- Screening will be conducted “if MarE3 department-in-charge decides it as necessary,” including the request of the ship and/or its operator.
- Specifically, the following cases are anticipated:
 - In order to minimize further spread, when signs of infection spreading on board (such as multiple people becoming ill) begin to appear.
 - Screening will be conducted when infection has spread to a certain extent on board, and the impact on the next voyage will be minimized by replacing positive individuals, etc.
- If screening is conducted, it is expected that it will be conducted on day 0 and day 3 for those who are unwell or have come into contact with a positive individual (without a mask, within 1 meter, for 15 minutes or more, 2 days before the date of onset/positive test result).

Regarding number of test kits on board

Regarding the number of test kits to be carried on board ships:

- COVID-19 antigen test kits: 30% of boarding capacity (may be slightly more for international voyage)
- Influenza test kits: 10% of boarding capacity
- Influenza and COVID-19 antigen test kits (combination type): 10% of boarding capacity
- Norovirus test kits: 10% of boarding capacity

Please bring your own masks to prevent the spread of infection

Notes:

- Combination type influenza and COVID-19 antigen test kit will be used first.
- If medical examinations are possible at a medical institution while the ship is at a port, whether on an international or domestic cruise, testing and treatment at a land-based medical institution will be given top priority.
- Please note that the type and number of test kits may change depending on changes in the situation, such as if a new infectious disease occurs in the future.

Q&A-1

Q1: What specific symptoms does “concern about your health” refer to on page 3?

A1: You are taking precautions against infectious diseases. You have “cold-like symptoms / acute gastroenteritis symptoms.”

- Gastroenteritis symptoms: since this is caused by a group of various pathogens, there are a wide variety of symptoms, but the most common are fever, diarrhea, nausea, vomiting, and abdominal pain. The characteristics of each symptom are as follows:
- Fever: in the case of viral gastroenteritis, body temperature is often in the 37°C range, but in bacterial enteritis such as *Campylobacter* enteritis and norovirus, it can reach 38°C.
- Diarrhea: in typical viral enteritis, stools are often "watery (loose motion)," and the frequency is so high that you often find yourself "staying in the toilet all day."
- Bacterial enteritis, nausea, and vomiting: these are usually caused by food or stomach acid. Eating oily foods makes the symptoms worse.
- Abdominal pain: this pain fluctuates characteristically. Conversely, abdominal pain that persists and gradually gets worse may not be gastroenteritis. The usual progression is nausea, fever, abdominal pain, and diarrhea, but in some cases of enteritis, fever may suddenly appear first, followed by vomiting and diarrhea.
- Reference (in Japanese):
<https://soujinkai.or.jp/himawariNaiHifu/gastroenteritis/#%E8%83%83%E8%85%B8%E7%82%8E%E3%81%AE%E7%97%87%E7%8A%B6%E3%81%AF%E7%BC%9F>



Q&A-2

Q2: What does "Isolation period for quarantined persons" on page 4 mean? Also, what is the basis for the period for wearing a mask? (In the case of COVID-19)

A2: The isolation period for quarantined persons in the case of COVID-19 is the same as the "period for which it is recommended to refrain from going out" below. The basis for the period for wearing a mask is as follows (2).

However, if a doctor gives instructions, follow those instructions.

Note that
this is
different
from the
influenza

(Reference (in Japanese) : <https://www.mhlw.go.jp/stf/corona5rui.html>) 。



(1) Recommended Period for Refraining from Going Out

- The risk of infecting others is particularly high during the first five days after the onset of symptoms. Therefore, the day onset of symptoms is counted as day 0 (※1). It is recommended to refrain from going out for five days (※2). If symptoms persist on the fifth day, it is recommended to refrain from going out and monitor the situation until approximately 24 hours have passed since the fever subsided and symptoms such as phlegm and sore throat subsided. If symptoms are severe, consult a doctor.

(※1) If you are asymptomatic, the day your specimen was collected is counted as day 0.

(※2) Even if you must go out during this period, be sure to confirm that you have no symptoms and take precautions such as wearing a mask.

(2) Consideration for Others

Because there is a possibility of viral shedding for up to 10 days (from the onset of symptoms), take care to avoid spreading the virus to others by wearing a nonwoven mask and avoiding contact with elderly and other high-risk individuals. If symptoms such as coughing and sneezing persist even after 10 days from the onset of symptoms, be sure to practice proper cough etiquette, such as wearing a mask.

Q&A-3

Q3: What does "Isolation Period for Quarantined Persons" on page 4 mean? Also, what is the basis for the period for wearing a mask? (In the case of influenza)

A3: In the case of influenza, the "abstention from attendance" period and the recommended period for wearing a mask are as shown in the diagram below.

(Reference (in Japanese) : https://www.jrc.sophia.ac.jp/uploads/2023/05/influenza_shusekiteishi_hayamihyo.pdf)



Quick reference for abstention from attendance due to Influenza (excluding COVID-19 and avian flu)

	Onset	Days after Onset									
	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
		Recommended period for wearing a mask									
No fever on day 1 after onset	Fever	No fever	No fever Day 1	No fever Day 2							
		Abstention from Attendance						Attend OK			
No fever on day 2 after onset	Fever	Fever	No fever	No fever Day 1	No fever Day 2						
								Attend OK			
No fever on day 3 after onset	Fever	Fever	Fever	No fever	No fever Day 1	No fever Day 2					
								Attend OK			
No fever on day 4 after onset	Fever	Fever	Fever	Fever	No fever	No fever Day 1	No fever Day 2				
								Attend OK			
No fever on day 5 after onset	Fever	Fever	Fever	Fever	Fever	No fever	No fever Day 1	No fever Day 2			
									Attend OK		

Attendance standard

You will abstain from attendance until five days have passed since the onset of symptoms (the day after fever is counted as day 1) and two days have passed since the fever has subsided (no fever) and symptoms have improved.

*Symptoms improved: The fever has subsided and body temperature has returned to normal, so that there is no need to take fever-reducing medication, and respiratory symptoms are showing signs of improvement.

*Fever: If you have fever at least once in a day, it will be counted as a fever onset day.

Abstention period will be extended considering the "No fever" situation.

Q&A-4

Q4: On page 4, "For how long will people around (people who tested positive) be required to wear masks?"

A4: Based on the information below, a period of 7 days is assumed to be on the safe side.

[COVID-19] <https://www.mhlw.go.jp/stf/corona5rui.html> (in Japanese)

In the case of COVID-19, although the duration of virus discharge from nose and throat varies from person to person, it is said to be from two days before the onset of symptoms until seven to ten days after the onset of symptoms. The average amount of the virus discharged is very high for three days after the onset of symptoms, but decreases significantly after five days, so please be aware that the risk of infecting others is particularly high during the first five days after the onset of symptoms.

In addition, the amount of virus discharge decreases as symptoms such as fever and cough improve, but it is said that virus continues to be discharged for a certain period of time even after symptoms have improved.

[Influenza] https://kantoh.johas.go.jp/column/20210416_6.html (in Japanese)

Even if influenza symptoms tend to improve, one can still infect others from one day before the onset of symptoms until about five days after the onset of symptoms, so please be especially careful during this period.



Reference (basis for "72 hours" mentioned in page 5)

In the case of Norovirus

- There is no legal requirement for a specific number of days for returning to work.
- It is recommended that all, except galley staff, return to work at least 72 hours after the vomiting and diarrhea symptoms have subsided (opinion of an occupational physician, November 2020).
- If a galley staff is found to be a carrier of norovirus (with or without symptoms), it is recommended that he/she takes appropriate measures, such as refraining from work that involves direct contact with food, until a stool test confirms that he/she is not carrying the norovirus. (*)

→It is recommended that galley staff not cook until stool test provides "negative" result (no infection).

When food poisoning occurred at R/V Mirai in 2020, health center staff inspected the galley, and PCR tests were ordered. The occupational physician instructed that galley staff should not perform any cooking work until their PCR tests were negative.

(*) Mass Cooking Facility Hygiene Management Manual (Ministry of Health, Labour and Welfare, last revised June 16, 2017)

<https://www.mhlw.go.jp/file/06-Seisakujouhou-11130500-Shokuhinanzenu/0000168026.pdf> (in Japanese)

It is recommended that "when testing for norovirus, it is desirable to use a test method that can detect norovirus on the order of 10^5 per gram of stool, regardless of the genotype."

Even if it is not a PCR test, at least the following antigen test method (BLEIA method) is considered to meet this requirement.

<https://www.kenko-kenbi.or.jp/service/pathogen/bleia/> (in Japanese)

