

Guideline for Burial and Cremation

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Pandemic Influenza Experts Advisory Committee

Guidelines for Smooth Implementation of Burial and Cremation

○ Establishing schemes for required cremation

- Prefectural governments investigate the capacities of local crematories in collaboration with municipalities. (Phases 1 to 3)



- Municipalities prepare human resources, necessary supplies to maximize the capacities of local crematories, in collaboration with prefectural governments. (Phases 4 and 5)



- Prefectural governments request crematory operators to operate the cremators at the maximum capacities (Phase 6)

○ Measures for preserving bodies

- Municipalities arrange facilities and necessary supplies for temporary preservation of bodies, in the case there are more deaths beyond the capacities of crematories, in collaboration with prefectural governments. (Phases 4 and 5)



- Prefectural governments and municipalities arrange facilities and equipment with cooling functions, to preserve bodies temporarily.
- If bodies need be preserved for a long time before cremation, raising concerns of public health, prefectural governments examine extraordinary measures as necessary such as permitting burial in graves. (Phase 6)

* Considerations must be given to funeral cultures and religious emotions of the bereaved in burial, cremation and preservation of bodies.

Guideline for Burial and Cremation

1. Objectives

- In Japan, cremation makes up almost 100% of all methods for treating the dead (i.e. interment, cremation etc.). If infection by pandemic influenza spreads into nationwide pandemic, the number of deaths may exceed the capacities of crematories, raising difficulties in the smooth implementation of cremation, as well as causing public health problems due to the preservation of bodies waiting for cremation.
- The Law concerning the Prevention of Infectious Diseases and Medical Care for Patients of Infections (Law No. 114, 1998) etc. provides exemptions of the rules prohibiting burial or cremation within 24 hours of death, stipulated in the Law concerning Graveyards, Burial etc. (Law No. 48, 1948) (hereafter “Burial Law”). These exemptions admit burial and cremation of patients dying from pandemic influenza, one of the designated infectious diseases, within 24 hours of death, from the viewpoint of infection prevention. It is also stipulated by these exemptions that bodies contaminated or suspected of contamination by pandemic influenza virus or similar pathogens shall be cremated in principle.
- Therefore, it is necessary to establish a scheme in advance to enable smooth cremation in the case of pandemic resulting in a large number of deaths.
- These guidelines provide recommended measures by municipalities and other procedures to enable smooth burial and cremation in individual localities as far as possible, in the case of pandemic influenza.

2. Roles of related institutions

- Municipalities are authorized to issue permits for burial and cremation, and otherwise ensure appropriate implementation of burial and cremation in individual localities, under the Burial Law. Therefore, municipalities shall establish necessary schemes for cremation etc. in the case of pandemic influenza, in collaboration with prefectural governments, while taking the lead in response to individual cases of burial and cremation, as well as in the preservation of bodies and other related measures.
- Prefectural governments (including designated and major cities; the same applies to the following) are authorized to issue permits for the operation of graveyards, crematories etc., under the Burial Law. Therefore, prefectural governments shall establish necessary schemes for cremation etc. in the case of pandemic influenza, in collaboration with municipalities, while supporting them in response to individual cases of burial and cremation, as well as in the preservation of bodies and other related measures.

3. Response up to Phase 3 (Pandemic alert period)

Prefectural governments shall investigate the capacities of local crematories in collaboration with municipalities, as to the number of available cremators at local crematories, the average and maximum numbers of cremation per day, fuels used and the levels of fuel stock, staffing status of individual crematories, etc. After examining a cremation scheme in the case of pandemic based on data collected as above, prefectural governments shall share the outputs with the relevant municipalities.

4. Response in Phases 4 and 5 (Pandemic alert periods)

(1) Establishing a cremation scheme

- In Phases 4 and 5, prefectural governments shall identify the latest information on cremating capacities of crematories as necessary, while sharing collected information with municipalities.
- Municipalities shall collaborate with prefectural governments and individual crematories, securing necessary supplies to protect cremation workers from infection (e.g. gloves, surgical masks). Municipalities shall also examine and prepare required human resources and consumables (e.g. coffins or plates used to carry bodies during cremation) to maximize capacities of crematories during pandemic. It may be useful to list individuals with experience in cremation operations, who may be mobilized in the case of emergency. Municipalities shall also request crematories to expand the stock of fuels used for cremation.
- In the case of pandemic, it is expected that the number of deaths exceed temporarily the capacities of crematories throughout Japan. If extensive collaboration and cooperation between neighboring municipalities are considered effective, considering the differing capacities of local crematories, the relevant municipalities shall take necessary measures referring to agreements on mutual assistance in extensive cremation at times of disaster.

(2) Preservation of bodies

- Municipalities shall make necessary arrangements to enable temporary preservation of bodies based on the capacities of local crematories, in the case pandemic occurs resulting in a large number of deaths exceeding the capacities of crematories. Required arrangements shall include the securing of public facilities such as community centers and public gyms, equipment with cooling functions such as refrigerators and refrigerated trucks, and necessary supplies including preserving agents for the preservation of bodies, impermeable body bags (made of plastics) to prevent infection by bodies.
- At the same time, municipalities shall promote arrangements for necessary human resources for the preservation of bodies.

(3) Points of notice to prevent infection

1) Contact with bodies etc.

- Through out the processes of transfer of bodies to crematories and cremation there, bodies shall be put and sealed completely in impermeable body bags to prevent infection. Bodies should not be taken out of the bags at all until cremation finishes, as far as the bereaved accept that.
- As long as the body is put and sealed completely in an impermeable body bag throughout the transfer process, no additional measures are required for infection prevention, and the body may be transferred by his or her bereaved.
- Individuals engaged in the transfer of bodies continuously, or those engaged in cremation processes, shall wear gloves during operations. They shall also wear surgical masks and eye protectors (face shields or goggles) if blood, bodily fluid, secretion (excluding perspiration), excretion etc. from the body may scatter over their face. If such protective devices are contaminated, they shall be disposed of (in the case of single-use devices) or disinfected adequately (in the case of multiple-use devices).

Note: See Attachment 1, Guidelines for Infection Prevention at Medical Facilities, for the details of disinfection agents and procedures.

- If the bereaved hopes to touch the body before cremation, they shall wear surgical masks and gloves. If they only bid farewell without touching the body, the wearing of surgical masks and gloves is unnecessary.

2) Disinfection measures

If crematories etc. need disinfection, use disinfectant ethanol, sodium hypochlorite solution of concentration between 500 and 5,000 ppm, isopropanol of 70v/v%, etc. It is preferable to wipe areas to be cleaned with a cloth, paper towel etc. deeply soaked in a disinfectant agent. In the case of sprayed disinfection, it is necessary to spray a disinfectant agent sufficiently so that no areas are left dry of the agent, and to wipe all the areas with a cloth etc. It must be noted that spraying of disinfectant agents may raise and spread pathogens.

Note: See Attachment 1, Guidelines for Infection Prevention at Medical Facilities, for the details of disinfection agents and procedures.

(4) Considerations for funeral cultures and religious emotions of the bereaved

Preservation, cremation and burial of bodies infected by pandemic influenza shall be undertaken under specified restrictions to prevent the spread of infection. However, it is desirable to give sufficient considerations to local funeral cultures and religious emotions of citizens. Requests of the bereaved shall be satisfied as far as possible, unless they interfere with requirements for infection prevention.

5. Response in Phase 6 (Pandemic period)

(1) Establishing a cremation scheme

- Once pandemic enters Phase 6, prefectural governments shall request the operators of crematories to operate their cremators at the maximum capacities.
- Municipalities shall secure continuously gloves, surgical masks and other supplies required to protect cremation workers from infection, in collaboration with prefectural governments and individual crematories. Municipalities shall also arrange promptly required human resources and consumables to maximize capacities of crematories.

(2) Preservation of bodies

- As soon as the number of deaths is expected to exceed the capacities of crematories, prefectural governments and municipalities shall make necessary arrangements to enable temporary preservation of bodies, by securing public facilities such as community centers and public gyms, and/or equipment with cooling functions such as refrigerators and refrigerated trucks. Prefectural governments and municipalities shall also secure necessary supplies including preserving agents for the preservation of bodies at such facilities, and impermeable body bags and other devices to prevent infection by bodies, as well as human resources required in the operations of preservation.
- Throughout the preserving and transferring processes, bodies infected by pandemic influenza must be marked visibly to ensure separation from other bodies and swift cremation of the infected.

(3) Shift to interment etc.

If the number of bodies even exceeds the capacities of temporary preservation facilities, municipalities shall take immediate measures to expand the preserving capacities. At the same time, if bodies must be preserved for an excessive time period waiting for cremation, with risks of causing public health problems, prefectural governments shall consider permitting the burial of bodies infected by pandemic influenza in graveyards without cremation, after sufficient disinfection. If there are no available graveyards nearby, it may be an option to admit temporary burial in provisional public graveyards converted from other public grounds that were considered to have no interfering conditions. Other measures should be examined as necessary to retain public health.

(4) Points of notice to prevent infection, and considerations for funeral cultures and religious emotions

See sections for Phases 4 and 5.

Glossary

○ Pandemic (new) influenza

A term used if an influenza outbreak is caused by efficient and sustainable human-to-human transmission of influenza virus categorized into subtypes HA or NA (classified by difference of antigenicity of glycoprotein on the surface of a virus, between hemagglutinin (HA) or neuraminidase (NA)), without human infection records in the past several decades.

○ Avian influenza

Avian influenza is an infectious disease caused by type A influenza viruses differing from human ones, and carried by birds, typically water birds. Among them, those causing birds' deaths or otherwise indicating particularly high pathogenicity are called 'highly pathogenic avian influenza'.

Cases of birds to human transmission of influenza virus H5N1 have been identified recently, mainly among humans having close contact with infected birds or their viscera or excretory substances. No infection through intake of cooked meats or eggs has been reported.

○ Pandemic

Refers to worldwide outbreak of an infectious disease.

In particular, pandemic (new) influenza viruses may cause a serious pandemic, due to their potential ability to transmit from humans to humans highly efficiently, because most humans lack immunity against such viruses that have never existed before.

○ Phases

Classification of pandemic influenza stages in line with pandemic phases defined by the World Health Organization (WHO); Six phases are defined based on the geographical expansion of infection, each of which is further divided into subcategories "A," which indicates no outbreak has occurred in Japan, and "B," which indicates an outbreak occurring in Japan. Accordingly, the present status is classified as Phase 3A (Human infections with a new subtype influenza virus have been identified, but no human-to-human transmission is occurring in principle, suggesting no risks of infection spread through human-to-human transmission; No outbreak in Japan).

○ Surveillance

Vigilance or monitoring; Especially for an infectious disease, periodical monitoring of the outbreak trend (patients and pathogenic agents) and trend estimation (infectious disease surveillance) are implemented based on the Law concerning the Prevention of Infectious Diseases and Medical Care for Patients of Infections.

○ Proactive epidemiological research

Epidemiological studies conducted directly by health centers etc. as a part of countermeasures against infection diseases, in accordance with Article 15 of the Law concerning Prevention of Infection of Infectious Diseases and Patients with Infectious Diseases

○ Antiviral drugs

Drugs that alleviate symptoms of influenza by specifically inhibiting the multiplication of influenza viruses

○ Pre-pandemic vaccines

Vaccines manufactured from viruses isolated from patients or birds infected by birds to human infection, prior to the outbreak of pandemic influenza viruses (The present vaccines are produced using an H5N1 subtype.)

○ Pandemic vaccines

Vaccines manufactured from viruses that actually cause humans to human infection during pandemic

○ Personal Protective Equipment (PPE)

Refers to personal protective equipment designed and developed to protect individuals from damage caused by contact with pathogens, chemicals, radioactive substances and other hazard sources, and includes masks, goggles, gowns, gloves and others. In the case of pathogens, the primary objective of PPE is to prevent their infection. Therefore, differing PPE must be developed and supplied in accordance with infection routes and applications (e.g. screening, medical consultation, invasive procedures).

○ Coughing manners

Infection prevention measures recommended to (suspected) patients

- Cover the mouth and nose when you cough or sneeze, turning the face away from others and keeping a distance of at least one meter.
- Install covered trash boxes so that tissue paper containing respiratory secretion (such as nasal mucus and phlegm) can be disposed of immediately.
- Urge coughing persons to wear masks.
 - * It is desirable to use less penetrable masks such as surgical masks used at medical facilities, but common marketed masks are considered capable of

preventing the spread of virus coughed out of infected persons to a certain degree.

* It must be noted that, even if a healthy person wears a mask, he or she cannot completely prevent the inhalation of virus.

○ Polymerase Chain Reaction (PCR)

A method to multiply DNA greatly using polymerase (an enzyme related with its reproduction) and primer; this method is used in common in tests of pathogens, because it can identify even minute amounts of DNA. In the case of influenza viruses, the RT-PCR method using reverse transcriptase (RT) is used, because influenza viruses are RNA viruses and require conversion into DNA before PCR.

○ Risk communication

Sharing information on risks that surround us between the administration, local residents and other stake holders, promoting mutual exchange of information and opinions

○ Infection routes

General routes of infection by pathogens are as follows.

• Contact infection

Infection through direct contact between the skin and membrane or wound, or indirect contact through intervening environment

• Droplet infection

Infection through large particles containing pathogens (droplets larger than five microns), scattering and attaching to other person's nasal or oral membrane, or conjunctiva; Droplets scatter during coughs, sneezes, conversation etc., and only reach a short distance (within one to two meters) without drifting in the air.

• Aerial infection

Infection through small particles containing pathogens (droplets the size of five microns or smaller), scattering and inhaled by other person; Droplet nuclei are suspended in the air, and require special ventilation (including the use of negative pressure rooms) and filters to remove.

○ National Epidemiological Surveillance of Infectious Diseases (NESID)

Under the Infectious Diseases Law, the outbreak trends of various infectious diseases are under continuous monitoring to identify outbreak information promptly, thereby preventing their occurrence and expansion, as well as providing accurate information to the general public. This monitoring is based on reports from medical institutions diagnosing specified infectious diseases. The NESID refers to an electronic system based on the Internet and networks between the central and local governments, aimed at centralized and efficient compilation and analysis of such reports.