Governmental management after the outbreak of novel influenza (A/H1N1)

# 1. The course of management

### (1) The management immediately after the outbreak

On 25 April 2009, the day shortly after the WHO announcement of outbreak of cases with flulike symptoms, we established Information Coordination Office at Crisis Management Center in Prime Minister's Official Residence. At the same time in the Ministry of Health, Labour and Welfare we established Information Sharing Coordination Office at the responsible Health Service Bureau and released obtained information to the press. Also we opened counters for public telephone consultation service.

### (2) Enforcement of quarantine and public health measures

# • From formulation of basic management policy till WHO declaration of phase 5 (end of April)

On 28 April 2009 (Japanese standard time) when WHO declared phase 4 (Diagram 1-2-1), Headquarters for Measures against novel influenza was established with the Prime Minister as its head and the current novel influenza (A/H1N1) was evaluated as "New or Reemerging Influenza Infections" prescribed by "Act on Prevention of Infectious Diseases and the Medical Care of Infectious Patients" "Infection Act") . As a result, it was decided that novel influenza (A/H1N1) at its outbreak should be managed according to the "action plan" aimed at highly pathogenic novel influenza with information on prevention of outbreak and spread being released. And in accordance with "the Basic Guidelines for Measures" formulated by the Government, the Ministry of Health, Labour and Welfare has, on the basis of "Guidelines for Measures against Novel Influenza" (aimed at avian influenza (H5N1)formulated on 17 February 2009, not only strengthened quarantine quarantine measures including shoreline forcible measures isolation/internment of infected persons, but also urged Metropolitan and Prefectural Governments to set up "Fever Consultation Center" and "high-fever outpatient departments" in local health care centers etc. For intensifying quarantine, considering also an increase in number of overseas travelers during 'golden week' holidays, staff was sent from the Ministry of Health, Labour and Welfare itself etc. being supported by cooperating Self-Defense Forces medical officers of the Japanese Ministry of Defense etc., doctors of National Hospital Organization, medical department of national universities under the Ministry of Education, Culture, Sports, Science and Technology and private medical institutions.

Chart 1-2-1 Warning phases of pandemic (epidemic worldwide) influenza by WHO guideline

	Phase situation	Management by the state where infection occurred.
Phase 1 - 3	Infection is mostly limited to animals and minimal in humans.	Planning of preparedness for and management of pandemic influence
Phase 4	Continuous human-to-human infection exists.	Rapid containment of spread
Phase 5 - 6		Management in response to pandemic: management based on individual states' plan
Post Peak Period	Levels of infection have dropped that of peak period in most countries	Evaluation of management, preparation for second wave
Post Pandemic Period	Epidemic activities have returned to the level of seasonal influenza.	Evaluation of management, reexamination of plan etc.

<sup>\*</sup>This scale is not meant for predicting events in each phase but for urging government of each country to plan preparedness and management \*Pandemic does not always follow this order.

#### 2 The first detected case at quarantine and outbreak of domestic infection (May)

On 30 April 2009 (Japanese standard time) WHO raised the phase from 4 to 5 urging Novel Influenza Countermeasures Headquarters in Government to revise "the Basic Guideline for Measures" on 1 May. Until around 10 May (on 9 May pre-entry quarantine detected the first case of novel influenza (A/H1N1) infection in a patient having arrived in Japan from USA on 8 May) a system primarily for quarantine enforcement and against domestic outbreak was still being arranged. Then on 16 May in accordance with the confirmation of the first domestic patient without history of overseas travel, "Checklist" was formulated requesting investigation of management

<sup>\*1</sup> On the day before WHO announcement, CDC (Centers for Disease Control and Prevention) announced cases of outbreak in USA, about which, on 24 April, immediately after obtaining this information we offered it to persons responsible in Metropolitan and Prefectural Governments and called for attention without waiting for the establishment of Information Sharing Coordination Office.

for reducing the chances of infection (by staggered office/school hours and toleration of commuting/attending by car, etc.) in "the areas including those where patients and their close contacts have been in activity" (specified individually by the Ministry of Health, Labour and Welfare) , thereby temporary closure etc. (for about one week) were enforced in junior/senior high schools etc. in the area of outbreak of the said case. Additionally, respective comments of the director of Novel Influenza Countermeasures Headquarters (the Prime Minister) were announced on the confirmation of a case at the step of airport quarantine on 9 May and the confirmation of first domestic infection on 16 May.

Meanwhile, by this time it was clarified that current novel influenza has such similarities with seasonal influenza as ① high infectiousness, though with most infected persons recuperating from mild cases; ② effectiveness of anti-influenza antiviral drugs, on the other hand, however, that seasonal influenza causes many fatal cases in the aged while, according to cases abroad, the novel influenza seriously affects mainly persons with basic diseases (diabetes mellitus, asthma etc.) with some fatal cases.

Taking into account such features of virus, Novel Influenza Countermeasures Headquarters in Government re-revised its "the Basic Guidelines for Measures" revised on 1 May for the goal of ① minimalizing the effect on national life and economy while blocking spread of infections; ② protecting persons with basic diseases, while the Ministry of Health, Labour and Welfare formulated "Guidelines for Securement of Medical Services, Quarantine and Request for Temporary Closure of Schools and Childcare Facilities". The guidelines are intended for classification of areas into "areas with small number of patients at early stage of infection, where blocking of infection spread should be pursued" and "areas with rapid increase in cases, where stress should be put on prevention of serious complications" according to situations of outbreak, and for enforcement of respectively corresponding measures.

# **3**WHO declaration of phase 6 and revision of the guidelines (June)

Afterwards, cases of mass outbreak in some schools and sporadic cases such as those with unknown infection route was about to increase, which the Ministry of Health, Labour and Welfare has managed by e.g. changing the above-mentioned areas. Aside from such domestic outbreaks, the WHO declaration of phase 6 on 6 June (Japan Standard Time) marked a worldwide epidemic with a phenomenon of remarkable

increase in southern hemisphere which was just entering winter (cf. Section 3. 1 (2) Chart 1-3-3). Such being the case, concluding that inflow of infected persons from abroad could not be stopped and nationwide, large-scale increase in cases might occur at any moment, we evaluated the time (the middle ten days of June) as the preparatory period for controlling increase in cases with preventive measures for infection spread thereby managing autumn/winter situations, and revised "Guidelines for Securement of Medical Services, Quarantine and Request for Temporary Closure of Schools and Childcare Facilities" in accordance with the concept shown in Chart 1-2-2.

Chart 1-2-2 Basic concept for revision of June 19, 2009

- (1)Securement of sufficient beds for an increasing number of seriously ill patients and arrangement of system for medical care provision with utmost emphasis on lifesaving of seriously ill patients
- (2)Strengthening of infection prevention measures for those with basic diseases, etc. through exhaustive preventive measures for nosocomial infection, etc.
- (3)Steady execution of surveillance for the earliest possible detection of infection spread and change in virus properties
- (4)Effective execution of public health measures for containment / alleviation of rapid infection spread as well as for large-scale and simultaneous epidemics

# **4** After the declaration of epidemic onset in August

Afterwards, the Ministry of Health, Labour and Welfare continued to strive for grasping behavior of mass outbreak, which showed a tendency to rise in cases reported in the tracking of epidemic outbreak behavior (for grasping not only novel but also seasonal influenza) with the number of reports per fixed point being 0.99 since 3 August. When the number rises above 1, the influenza is considered to have become epidemic, therefore the Ministry of Health, Labour and Welfare announced "At the beginning of epidemic of novel influenza (A/H1N1)" in the name of the Minister of Health, Labour and Welfare on 19 August followed by an announcement to the effect that "the influenza has become epidemic". At these announcements, we released information on outbreak behavior, asked once again every citizen to consciously take preventive measures for infection, and furthermore appealed to those who have basic diseases or who are pregnant or have babies. On 15 August a confirmed patient with new type influenza deceased as the first fatal case in Japan. On the same day a comment of the Director of Novel Influenza Countermeasures Headquarters (the Prime Minister) was announced, and on 25 August when at the Ministerial meeting the Prime Minister instructed the Minister of Health, Labour and Welfare and the ministers concerned to promptly manage, the Minister of Health, Labour and Welfare explained measures

taken already at the time and asked each ministry for future cooperation.

Such being the case, on 28 August we issued official message to Metropolitan and Prefectural Governments etc. concerning improvement of medical system asking for confirmation and thorough performance of management corresponding to local situation which are focused on securement of sufficient beds etc. for increased number of seriously ill patients, consolidation of medical care system with top priority placed on lifesaving of seriously ill patients, and strengthening of infection countermeasures for people including those with basic diseases (details described later at Section 4).

In autumn the number of reported influenza cases per fixed point rose further to 4.95 in the week during 14-20 September. As a result, in addition to Okinawa Prefecture where full-scale epidemic preceded (by this time, however, the peak, what is called "the first wave" was over), metropolitan areas including Osaka Prefecture and the City of Tokyo took lead in significant increase in the number of reported cases (Chart1-2-3).

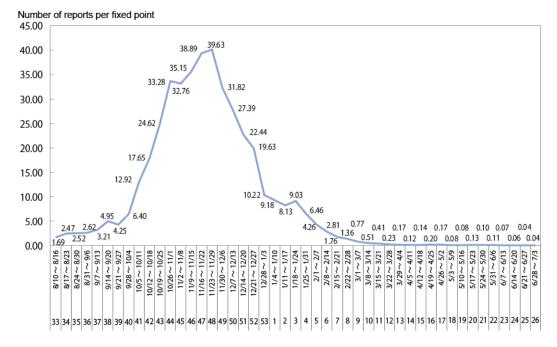


Chart 1-2-3 Influenza surveillance: weekly situation of outbreaks from 2009 to 2010

With the full-scale onset and infection spread under way, in order to do our most to control the rapid increase in number of infected persons and reduce the burden on medical facilities thereby securing medical care for seriously ill patients, Novel Influenza Countermeasures Headquarters in the Government decided on new "the Basic Guidelines for Measures" on 1 October (Diagram 1-2-4, 1-2-5). On the same day

along with the decision on "Basic Guidelines for vaccination of the novel influenza (A /H1N1)" which represents basic ideas about vaccination, its securement and sharing of costs etc., the Ministry of Health, Labour and Welfare, based on background of revision of "the Basic Guidelines for Measures" and experiences in Okinawa Prefecture where infection spread preceded, and so on, revised "Guideline for Securement of Medical Services, Quarantine and Request for Temporary Closure of Schools and Childcare Facilities" dated 1 October instant.

Chart 1-2-4 The Minister of Health, Labour and Welfare, Akira Nagatsuma holding a press conference on October 1, 2009 in response to the decision by the meeting at Novel Influenza Countermeasures Headquarters in the Prime Minister's Official Residence



Chart 1-2-5 The change in "the Basic Guidelines for Measures" (Summary)

Items	April, 28	May, 1	May, 22	October, 1
Feature of the current Novel Influenza (A/H1N1) (similarity to seasonal influenza)	-	-	Notwithstanding high infectiousness, most patients recover after having a slight illness. Treatment with anti- influenza virus drugs is effective.	same as on the left
Difference from seasonal influenza	-	-	In overseas cases, mainly those with basic diseases (such as diabetes mellitus, asthma, etc.) suffer from serious complications and there are some fatal cases (in cases of seasonal influenza, many elderly die from serious complications)	In addition to the left, there are some healthy young persons suffering serious complications and dying
Basic stance	(Management based on "Action Plan" formulated with emphasis	same as on the left	<ul> <li>Based on features of virus, measures such as</li> </ul>	Based on features of virus, measures such as
	rian Tormulaeu wuren priesis on virulent avian influenza A/H5N1)		① not only keeping the effect on national life and economy at a minimum while preventing infection spread,	① same as on the left
			but also sticking to the goal of protecting those with basic diseases etc. must be taken.	② sticking to the goal of protecting those with serious illness or basic diseases easily leading to severe complications must be taken.
			o Action Plan should not be directly applied, instead, based on the Basic Guidelines for Measures, flexible measures should be taken according to the actual situation of each region.	<ul> <li>Control as much as possible rapid increase in the number of infected persons, reduce as much as possible stagnation in social activities and burden on medical institutions, and secure medical care for seriously ill persons</li> </ul>
Gathering and provision of information	<ul> <li>Utmost endeavor to gather information from WHO etc.</li> </ul>	o same as on the left	<ul> <li>Endeavor to gather information from WHO etc.</li> </ul>	o same as on the left
	Swift and adequate information provision (adequate	o same as on the left	Strengthen domestic surveillance and swiftly grasp the infection situation in all	Effective use of surveillance works etc.
	Strengthening of domestic surveillance	o same as on the left	regions, thereby swiftly provide information on the areas etc. of activities of patients and their close contacts	o Inform the nation of the duty of each person in preparation for epidemic such as preventive measures for infection, the procedure of a hospital visit in case of being infected, etc.
Preventive measure for infection spread	-	<ul> <li>Thorough execution of positive epidemiological study</li> </ul>	o same as on the left	o-(delete in response to change in situation)
		○ Caution at going out	o same as on the left	o same as on the left
		Request for staggered working hours and commutation by bicycle or on foot	Request to business operators and schools for expedient measures in commutation and attendance etc.	In addition to the left, request to persons with fever for application for leaves
		Request for self-imposed restrictions on meeting and sporting events	Request to the leaders of meeting and sporting events for study of expedient measures for reducing chances of infection	Same as on the left
		Request for temporary closure of schools and childcare facilities as occasion demands     Request for self-imposed restrictions on unnecessary or non-uncent going out.	Formulate additional application guidelines for request for temporary closure of schools and childcare facilities	In case of outbreaks etc. at schools and childcare facilities etc., Metropolitan and Prefectural Governments etc. request to the managers etc. for temporary closure as occasion demands (for details see application guidelines)
			No request addressed for self-imposed restrictions on going out, meeting and sporting events	o -(delete in response to change in situation)
Securement of medical care	Adequate information provision for personnel concerned including those in health and medical care sectors     Preparation for establishment of the Fever	same as on the left      Immediate arrangement of high-fever outpatient	Formulate additional application guidelines for securement of medical care	With emphasis on litesawing of seriously ill persons, support and request to relevant organizations for arrangement of the system for outpatient medical care in response to the outbreak trend and securement
	estabisment of the rever Consultation Center and high- fever outpatient departments	o Provision for possible patients with swift and adequate medical care  o Protection of health care providers and for initial management personnel		outbreaktrend and securement of sufficient beds for increasing seriously ill patients (for details see application guidelines)
Securement of relevant materials	-	Smooth circulation and adequate use of anti-influenza virus drugs, etc.	Request to relevant industries for smooth provision of anti- influenza virus drugs, test drugs, flu masks, etc. for areas etc. of activities of patients and their close contacts	Request to relevant industries for smooth provision of anti- influenza virus drugs, test drugs, masks etc.

Items	April, 28	May, 1	May,22	October, 1
Vaccine	Strengthening of isolation, detention, and guard at airports etc. of the infected or suspects	Immediate obtainment of viral strains, establishment of	Prompt manufacture and development of pandemic vaccine	For securement of vaccine and vaccinations, formulate additional guidelines
National life	Arouse confirmation of and attention to supply system of electricity, gas and water and living necessaries	Same as on the left	O same as on the left	O Same as on the left
			O In case of closure of childcare facilities, request to employers to adjust working hours/days of employees who are guardians of children. Securement of daycare for children etc. of health care providers etc.	O Same as on the left
			O Aid for persons with disabilities and the elderlywho live in their own home etc. O Call on people for proper	O Same as on the left O Same as on the left
			action in purchase of provisions and necessaries etc.  O Maintenance of security including control over various crimes triggered by social turmoil	O Same as on the left
Foreign aid	_	_	_	Aid for measures against Novel Influenza in developing countries in response to request from WHO/UN
Quarantine	Execution of the following shoreline countermeasures  ①Sending infection risk information to Mexic  ②Strengthening of aid to overseas Japanese (information provision, provision of Tamiflu in case of dearth)	Execution of the following shoreline countermeasures  ① Information sending to the country of outbreak about infection risk ② same as on the left	Reexamine shoreline countermeasures based on features of current virus O Formulate additional application guidelines for quarantine	Execution of the following shoreline countermeasures  O Thorough dissemination to immigrants of infection prevention and the procedure of a hospital visit in case of being infected (for details see application guidelines)
	3) Aid for homecoming of corporations from Mexico  4) Strengthening of quarantine, immigration, and public information at airp  5) Tightening of visa investigation of immigrants from Mexico  6) Strengthening of isolation,	3 Aid for homecoming of Japanese from the country of outbreak     4 same as on the left      5 Tightening of visa investigation of immigrants from the country of outbreak as occasion demands     6 same as on the left	Adequate information sending about infection risk in response to situation in foreign epidemic countries, aid for Japanese in foreign epidemic countries	O Same as on the left
	detention, and guard at airports etc. of the infected or suspects	-		