

Hospital Authority's Response Plan for Infectious Disease Outbreaks

- [I Introduction](#)
 - A [Preparedness for outbreaks](#)
 - B [Surveillance and notification mechanism](#)
 - C [Definition of outbreak](#)
 - D [General framework for response to outbreaks of infectious diseases](#)

- [II Checklist on HA response](#)
 - [Liaison with CHP and other Government departments](#)
 - [Governance on HA's response to major outbreaks](#)
 - [Collection and dissemination of epidemiological information](#)
 - [Infection control and outbreak management](#)
 - [Decanting and mobilization of patients](#)
 - [Human resources](#)
 - [Clinical management](#)
 - [Ensuring adequate supplies of drugs, consumables and equipment](#)
 - [Communication](#)
 - [Standing down](#)

[Go to Chinese Version](#)

Hospital Authority's Response Plan for Infectious Disease Outbreaks

Legends List

HA	Hospital Authority
DH	Department of Health
CHP	Centre for Health Protection
SEB	Surveillance and Epidemiology Branch
ICB	Infection Control Branch
CCID	Central Committee on Infectious Disease
CENO	Central Notification Office
CCC	Central Command Committee

I. Introduction

The Hospital Authority (HA)'s response plan for infectious disease outbreaks covers the contingency response taken by the HA in the event of a major outbreak of infectious disease, such as influenza pandemic.

A. Preparedness for outbreaks

2. Hospitals are required to assess local hazards and risks which have potential detrimental effects on normal service provisions, and to integrate emergency response arrangements into the hospital's day-to-day working structures and processes. Having a mechanism to prevent and control hospital-acquired infections and preparedness for infectious disease outbreaks form part of the quality standards in Section 3 of the HA's Annual Plan which hospitals need to comply with. Corporate efforts in promoting such quality standards and internal audits on the level of compliance are carried out as part and parcel of the HA's Annual Plan and audit plans.

B. Surveillance and notification mechanism

- 3 There is in place a surveillance and notification mechanism for infectious diseases between the Centre of Health Protection (CHP) and the HA consisting of
 - 3.1 Report of statutory requirement on **notifiable diseases to CENO by medical staff.**
Enhanced surveillance in specific diseases as implemented from time to time
 - 3.2 Ongoing surveillance of nosocomial infections by the hospital infection control teams;
 - 3.3 Report unusual trend of any infectious diseases to CENO and CCID Secretariat.
 - 3.4 When the followings are detected by CHP's surveillance system, CHP will alert HA **CCID** for dissemination of information and augmenting surveillance in the public hospital system:
 - 3.4.1 Unusual pattern of clusters in the community, private hospitals or institutions.
 - 3.4.2 When CHP is alerted on a patient confirmed or suspected to have infectious disease coming back to Hong Kong and intends to arrange for medical assessment and treatment at public hospitals.
 - 3.4.3 When *CHP is alerted* on occurrence of an unusual outbreak in neighboring areas.

C. Definition of outbreak

4. In general, the term outbreak is used for a situation when diseases or health events occur at a greater frequency than normally expected in a specified period and place¹.
5. To define the term in a more measurable fashion, an outbreak can be one of the following:

- 5.1 The occurrence of a greater number of cases or events than would normally occur in the same place when compared to the same duration in the past years.
- 5.2 A cluster of cases of the same disease occurs which can be linked to the same exposure.
- 5.3 A single case of a disease that has rarely if ever occurred before.

D. General framework for response to infectious diseases outbreaks

6. The general framework of response to infectious disease outbreaks in the HA is in three tiers. The response actually starts with watchfulness and surveillance of abnormal patterns of infections, which should be a part of our everyday risk management culture in the practice of medicine. When an abnormal pattern of infectious disease is discerned, there should be a swift assessment by the hospital infection control team on the significance of the infection, risk of hospital spread, availability of existing knowledge and guidance to treatment and control, and potential threat to the community, so that the hospital can take appropriate actions to manage and control the outbreak. When it is considered that the outbreak poses a significance risk to the hospital system and/or community and requires coordinated actions. The escalation of HA response to higher level is described below:
 7. Descriptions of each level of emergency responses:
 - 7.1 Tier One
 - 7.1.1 Definition: an abnormal pattern of infectious disease in the community or inside the hospital system and where there are and when there are existing guidelines and knowledge on treatment and control, and local action is judged to be adequate.
 - 7.1.2 The hospital infection control team should assess the potential of transmission of the infectious disease in hospital setting. For any outbreak with transmission in health care setting, the hospital should conduct an investigation on the outbreak, identify the source of infection, and step up local measures, such as isolation of the patients, augmenting infection control, staff training and monitoring as appropriate for controlling the outbreak. A room with the necessary communication means may be designated as the incident control room to facilitate data collection and dissemination of information.
 - 7.1.3 The Cluster Chief Executive (CCE) or the designated Hospital Chief Executive (HCE) will be in command for the response.
 - 7.1.4 CCID should be notified for alerting other hospitals to heighten preparedness and awareness.

7.1.5 The SEB of CHP should be notified. CHP's representatives shall participate in all Hospital Outbreak Control Meetings.

7.2 Tier Two

7.2.1 *Definition:* An abnormal pattern of infectious disease which may have territory-wide implications, or require an HA-wide response in:

- Providing central coordination in data collection and interpretation of the epidemiological pattern.
- Refining clinical management or infection control guidelines.
- Mounting a territory-wide response in service management and resource deployment

7.2.2 CCID will be alerted by SEB or Hospital ICT.

7.2.3 The Chairman of the CCID and ICB Head should in consultation with the designated Director in HAHO activate HA's response plan at an appropriate level. At tier two response, the Chairman of the CCID/ designated Director will be in command for the response.

7.2.4 At the local level, the CCE or the designated HCE of the hospital should liaise with SEB on investigation and control. At the central level, Chairman of CCID should liaise with SEB Consultant (Community Medicine) and ICB Head on the overall response.

7.2.5 The Chairman of the CCID will keep the Directorate informed of the actions taken, progress of the outbreak and seek directions on major decisions. When the outbreak has widespread territory-wide implications, the Chief Executive of the HA (CE) / Directors / Cluster Chief Executives (CCEs) will be directly involved in the command and control of the outbreak as in Tier Three response. A room with the necessary communication means may be designated as the incident control room to facilitate data collection and dissemination of information at hospital level.

7.3 Tier Three

7.3.1 *Definition:* The infectious disease outbreak has widespread or prolonged territory-wide implications, such as the following:

- There are major impacts on HA service.
- There is a need for major central policy directions in HA.

- Substantial cross cluster mobilization of patients and staff are required

7.3.2 Higher-level inter-departmental response will be required and the Government may activate the Inter-departmental Action Coordinating Committee.

7.3.3 The Chief Executive of HA (CE) will be in direct command for the overall response.

7.3.4 In addition to the liaison as in the first and second response tiers, HA and CHP will maintain close liaison at high-level command.

7.3.5 When tier three response is activated, the CE will:

- Activate the HA Central Command Committee (CCC) for the outbreak
- Formulate a deputizing plan on key posts (i.e. CE, CCE).
- Steer the overall HA response.
- Liaise with the Secretary for Health, Welfare and Food, the Director of Health and the Controller of CHP
- Represent the HA in the Government's higher level Committees.
- Involve the HA Chairman and HA Board on major decisions and keep the HA Board and Hospital Governing Committee (HGC) informed on progress of the outbreak and the ability of the HA to respond.
- Activate Major Incidents Control Centre (MICC) for data collection and information dissemination. .
- Activate the Business Support Sub-command Centre to coordinate procurement and distribution of supplies that are in high demand and to collect feedbacks on supplies and distribution of stocks.
- Initiate discussions with private hospitals and practitioners on provision of medical services and mutual support.

7.3.6 The CE could declare, when the situation warrants, a state of "emergency operation mode for disaster". Under such operation mode, the CE will effect deployment of supplies and manpower across clusters directly when necessary. Similarly, the CCE will effect deployment of supplies and manpower across hospitals and departments when necessary.

II. Checklist on HA response

8. Management and progress of outbreak should be properly documented. The followings are checklists of HA's response to infectious disease outbreaks:

8.1 Liaison with CHP and other Government departments

8.1.1 At hospital level, there will be a close liaison with the CHP on case definition, patient notification, contact tracing and outbreak control. Hospital outbreak control team may be formed if appropriate, with CHP representatives.

8.1.2 HAHO will maintain close liaison with CHP on case definition, mechanism of notification, contact tracing and outbreak control. Central outbreak control team may be formed if appropriate, with CHP representatives.

8.1.3 HAHO will continue close communication with the appropriate government departments on outbreak control or other related matters and through formal command structures when established by the Government in major outbreaks.

8.2 Governance on HA's response to major outbreaks

Within the HA, hospital management and HA executives will discharge their duty of accountability to the HGCs and the HA Board. The following will be considered in the event of a major outbreak:

8.2.1 Timely alert and information to HA Chairman and Board Members, Hospital Governing Committee Chairmen and Members on major incidents, including the provision of line-to-take messages and advice in case members of governance are approached by external parties.

8.2.2 Timely update to the Board on development and the ability of the HA to respond to the incident, which could be through: special updates with press release, news bulletin on intranet, special messages from the CE / Chairman, Chief Executive's progress reports to the Board.

8.2.3 Where necessary, the HA Chairman and Members may decide to hold extra-ordinary meetings or establish special task forces on specific areas of concern, and take part in the decision making process.

8.2.4 A designated Director in HAHO and a designated senior management staff at hospital level will be responsible for coordinating reports to the Board/HGC members.

8.3 Collection and dissemination of epidemiological information

8.3.1 Establishing case definition and reviewing the notification procedures in collaboration with CHP;

8.3.2 Ensuring data are efficiently collected;(e.g. activation of e-SARS or e-FLU)

8.3.3 Monitoring the progress and outcomes of patients;

8.3.4 Projecting the trend of the outbreak and possible implications to service (e.g. hospitalization rates, demand on intensive cares, human resources requirement); and

8.3.5 Dissemination of information in an efficient manner to CHP, the private sector and other key stakeholders.

8.4 Infection control and outbreak management

8.4.1 Circulars on investigation and control of outbreak have been promulgated. HA and CHP will promulgate new infection control guidelines where necessary.

8.4.2 The hospital's infection control team will investigate the outbreak and report to the CCID & CHP. When necessary, the hospital infection control team should evolve into a hospital outbreak control team. The hospital outbreak control team will be headed by the CCE or the designated HCE. Representative from CHP will be member of the team. Hospitals should build a pool of professionals with knowledge on outbreak investigation and control to provide assistance to the hospital infection control team. For hospitals without the appropriate expertise, the CCE should assist the deployment.

8.4.3 When necessary, the HAHO will collaborate with CHP and relevant specialists and deploy a central outbreak control team to assist the hospital to ensure:

- 8.4.4
 - The source of the infection is promptly identified and controlled.
 - Containment measures are in place to prevent further spread of infection.
 - Necessary changes to prevent the recurrence of the problems.
 - The lessons learnt are rapidly shared with other hospitals.

8.4.5 Patients and the inpatient contacts will be isolated in appropriate areas in accordance with the mode of spread and risk stratification.

8.4.6 Measures to prevent spread of the disease inside hospital and in the community will be assessed and implemented as appropriate.

8.4.7 The infection control measures should balance scientific evidence, practicality, sustainability and service implications.

8.4.8 Measures which have major service implications should be brought to the appropriate authority for decision making:

- Stop admission to ± discharge from ward(s): by CCE.
- Stop admission ± discharge in a hospital, or closure of A&E Department: by CE.

8.4.9 If there is a need to invoke the "Prevention of the spread of Infectious Diseases Regulations" to isolate patients in the hospital or the community, DH should be involved on policy and logistics.

8.4.10 With evidence collected and experience accumulated in outbreak investigation, the outbreak control teams should provide ongoing feedbacks to hospital management and HAHO for initiation of:

- Augmentation of infection control guidelines.
- Augmentation of staff training targeted to address areas of deficiencies.
- Environmental improvements.

8.4.11 If control of the outbreak involves specific measures such as a vaccination programme or use of prophylaxis, the CCID will promptly advise on a policy, and the extent of the coverage.

8.5 Decanting and mobilization of patients

8.5.1 Depending on the mode of spread, appropriate measures to isolate/ place patients in cohorting areas will be instituted. Talking avian influenza as an example, there will be a staged response in mobilisation of hospitals to isolate confirmed and suspected patients: Patients will be firstly taken by a designated hospital (Princess Margaret Hospital) in initial stage of mobilization. In later stages, designated hospitals in clusters, major hospitals in clusters, and all other hospitals in clusters will be mobilized respectively:

Cluster	Hospital	1st Stage	2nd Stage
HKEC	PYNEH		20
HKWC	QMH		20
KCC	QEH		20
KEC	UCH		20
KWC	PMH	20	
	KWH		20
NTEC	PWH		20
	AHNH		
NTWC	TMH		20

- For outbreaks which involve primarily paediatric patient groups, the mobilization will be fine-tuned in accordance with the plan for staged mobilization of paediatric hospital units
- Suspected patients refer to patients fulfilling criteria as defined and

promulgated by HAHO

- The above are for reference only. The actual mobilization in a particular outbreak will be subject to situational assessment coordinated by HAHO

8.5.2 The HAHO will ensure that

- Decanting is coordinated.
- Support to the receiving hospitals, including supplies and manpower is provided
- Additional isolation facilities for implementing the plans is assessed
- Directions on service reprioritization e.g. reducing other elective services are given.

8.5.3 Each hospital cluster should establish a contingency plan for service reprioritization which will be put into action when:

- There is an indication that the outbreak may have significant impact to hospital services
- There is evidence that services have been overloaded

8.5.4 The cluster plan for reprioritization should cover inter-hospital and inter-specialty service re-organization.

8.5.5 Designated hospitals need to prepare for receipt of patients. The plan should cover:

- Plans for reduction of non-urgent elective operations, especially operations that may potentially require ICU support.
- Plans for reduction of elective admissions.
- Plans for re-designation of wards less likely to be involved, such as surgical, orthopaedic and gynaecological wards.
- Staff deployment plan to provide assistance to the areas likely to be stressed.

8.5.6 Other hospitals in the cluster should similarly reorganize service to support the service re-organization

8.5.7 HAHO should in consultation with the relevant specialists, promulgate appropriate criteria on diversion to designated hospitals. The actual mobilization plan will base on:

- Capacity of the hospitals.
- Level of protection/ isolation required.
- Need to preserve expertise.
- Stage of development of the outbreak.

8.6 Human Resources

8.6.1 Service reprioritization and service reorganization should aim to reduce the need for deployment of staff.

8.6.2 Each hospital cluster should develop a plan for cluster based training and mobilization plan for clinical area likely to be stressed, such as: intensive care or respiratory care.

8.6.3 A plan for deployment of staff if volunteers cannot meet service needs should be in place in the cluster. Staffs are expected to comply, unless satisfactory reasons are provided. Staff deployment will be in the following sequence:

- Staff with expertise and experience on the required specialist skills.
- Staff trained in the field or a closely related field.
- Staff of a less affected specialty.

8.6.4 All staff deployed must first receive training on infection control and orientation of relevance to the local setting before they are put to full duties.

8.6.5 There should be equitable chances for deployment across all ranks under the same principles, unless there are demonstrable overriding essential needs in other clinical areas.

8.6.6 The policy on leave and relief related to the deployment issues will be decided by the HAHO taking into consideration the situational assessment of the outbreak.

8.6.7 If the outbreak involves large number of staffs, the HAHO in consultation with the staff clinics in-charges will implement the appropriate procedures to augment cases identification, health counseling and education.

8.7 Clinical Management

8.7.1 Where applicable, the contingency plan for each of the clinical specialties across hospitals, as advised by the respective Specialty Coordinating Committees should be put into action.

8.7.2 Cluster based support in specific clinical areas e.g. respiratory care, intensive care and infectious disease management will be mobilized to support the receiving hospitals when appropriate. If there is a need, HAHO will arrange cross-cluster mobilization.

8.7.3 The HAHO will support the clinicians on clinical management e.g. issuing protocols and guidelines. Where appropriate, HAHO will coordinate appropriate expert groups to make reference on clinical management and to guide practices in hospitals.

8.7.4 For outbreaks which warrant special research, assistance from relevant experts and academics will be solicited to consolidate efforts in preparing the appropriate research protocols in key areas to guide treatment.

8.7.5 For outbreaks involving elderly homes, the Community Geriatric Assessment Teams will enhance support to the Visiting Medical Officers of the Homes. Surveillance will also be enhanced through our Accident and Emergency Departments in collaboration with the CHP and Elderly Health Services of DH.

8.7.6 For specific infectious disease outbreak such as **avian influenza**, a number of General Out Patient Clinics will serve as designated clinics during pandemic phase.

8.8 Ensuring adequate supplies of drugs, consumables and equipment

8.8.1 The HAHO will make arrangements to ensure adequate stockpile of drugs, consumables and equipment in response of the outbreak

8.8.2 If the outbreak is likely to require additional stock, HAHO Chief Pharmacist and the Business Support Services will assess whether procurement and distribution should be centralized. If there is likely shortage and the outbreak involves multiple hospitals, there will be central coordination in arranging supplies.

8.8.3 A system on distribution and collection of feedbacks should be in place in HAHO, clusters, hospitals and frontline work units to ensure adequate supplies.

8.9 Communication

8.9.1 A situational communication plan (for both internal and external communication) to facilitate effective dissemination of information and feedbacks collection from key stakeholders, will be formulated, implemented and updated as the outbreak evolves with a view to engage public co-operation and avoid unnecessary panic.

8.9.2 Internal communication with HA staff regarding policy, strategy, operational details, infection control measures and communication tactics will be conducted via appropriate channels (e.g., e-mail, Intranet, circulars; CE's letters to staff, staff forums, video conference, hospital visits) and ad hoc means like daily bulletin, staff hotline and video newsletter.

8.9.3 External communication with patients and relatives, patient groups and advocates, politicians, other interested parties and the general public regarding personal precautionary measures, nature of the disease, treatment outcome and control of the outbreak will be conducted. Channels include the three Regional Advisory Committees of HA, District Councils, Legislative Council, the mass media (regular press briefing/statements, briefings to editorial writers and columnists,

radio & TV programs), public hotlines, professional associations and the HA web page.

8.9.4 During peace time, Public Affairs Team will be responsible for external communication that will be overlooked by Head of Corporate Communication. Internal communication will be managed by Communication Team, headed by Head of Human resources.

8.9.5 During crisis and pre-crisis planning, Head of Corporate Communication will coordinate both internal communication and external communication plus other communications such as board and Committee

8.9.6 Upward communication of staff can be relayed through operational channels to HAHO through their supervisors (frontline managers, department heads, and HCEs). Views can also be reflected through hotlines, forums or any other means

8.9.7 The scope of work of the communication group for the infectious disease outbreak set up by the Central Command Committee includes design of communication strategies and tactics, collection and analysis of external questions, opinion, complaints and suggestions through all channels. These channels include HASLink Express, Web page, briefings by HRM(IC) at HAHO, or by CCEs/ HCEs/ or designated communication managers in hospitals, forums, and e-mail,.

8.9.8 Systematic collation and recording of events, plans, decisions and outcome of actions from all levels during a crisis situation will be helpful in formulating communication strategies, debriefing and for internal or external inquiries after the crisis.

8.9.9 Taking into consideration the input from external and internal sources, the communication strategy (when, what, how, to whom and by whom) will be formulated and fine-tuned continuously. A team of spokespersons will be assigned to disseminate timely, accurate and consistent information (in liaison with those of Health, Welfare and Food Bureau (HWFB), DH, CHP and other related Government departments).

8.9.10 Where appropriate, information on the outbreak and infection control measures will be shared with medical practitioners in the private sector to solicit their cooperation and support.

8.10 Standing down

8.10.1 Control of the outbreak should be declared taking reference to the incubation

period of the infection. Inputs from CHP should be consulted when appropriate. HA will declare standing down of the hospitals' actions taking into consideration the control of the outbreak and the clinical needs of the patients under treatment in the hospital.

Reference:

- ¹ Oxford Textbook of Public Health (4th ed) 2002 Page 530.
- ² Hospital Authority Head Office Operations Circular no 12/2005: Outbreak investigation and control in HA hospitals.
AOM-P305, AOM-P413, AMO-P414
Scenarios for Hospital & Bed Mobilization for Avian Influenza (Feb 2006)