

Chapter 3 Gathering of information/intelligence about epidemic of infectious diseases in the Mainland and strategy/ contingency plan of the Hospital Authority for dealing with a large-scale outbreak of an infectious disease

Finding of facts

Communication between the Mainland and Hong Kong on the atypical pneumonia epidemic in Guangdong

3.1 One of the reasons why the Kwong Wah Hospital (KWH) went through the SARS epidemic unscathed was that some healthcare workers (HCWs) there had heard of the atypical pneumonia (AP) epidemic in Guangdong before AA's visit to the Hospital and were alert to the possibility of the epidemic spreading to Hong Kong. There were sporadic reports in the Hong Kong press in January and February 2003 on the epidemic. As early as 4 January 2003, the Hong Kong Commercial Daily and The Sun carried reports on the epidemic in Guangdong and on people there buying antibiotics to cure the disease. There were rumours about people trying to prevent contracting the disease by boiling vinegar at home with the result that vinegar was sold out in certain places in Guangdong and even in certain shops in Hong Kong.

3.2 The Select Committee learnt from the Head of the Department of Microbiology of the University of Hong Kong (HKU), Professor YUEN Kwok-yung, that he was very concerned about the situation in Guangdong as there was an increasing number of reports in the media in Hong Kong and the Mainland between 7 February and 10 February 2003 about unusual outbreaks of AP in Guangdong. It was decided on 10 February 2003 that two colleagues of his Department should visit Guangzhou to investigate the infecting agent responsible for the outbreaks and, if possible, collect samples from AP patients in Guangzhou. Arriving in Guangzhou the following day, these two colleagues met with the Head of the Respiratory Research Centre at the First Affiliated Hospital of the Guangzhou Medical College, and collected samples from AP patients in Guangzhou for investigation.

3.3 Professor YUEN told the Select Committee that he subsequently called the Director of Health, Dr Margaret CHAN FUNG Fu-chun, on 12 February and 16 February 2003. During those conversations, Professor YUEN told her about the investigation into the possible infecting agent responsible for the AP outbreaks in Guangdong and of the visit to Guangzhou. He also relayed to her his concern that a large number of HCWs were infected there. Professor YUEN told the Select Committee that Dr CHAN shared his concern and asked him to keep her updated on the investigation.

3.4 While the academic staff in HKU were already aware of the press reports on the AP situation in Guangdong in early February 2003 and went to Guangzhou to start the investigation into the epidemic on 11 February 2003, none of the senior officials in charge of public health matters in Hong Kong, including the Consultant Community Medicine in-charge of the Disease Prevention and Control Division of the Department of Health (DH), Dr TSE Lai-yin, Dr CHAN and the Secretary for Health, Welfare and Food (SHWF), Dr YEOH Eng-kiong, picked up such reports or rumours. Dr TSE informed the Select Committee that monitoring media reports was just one means, which supplemented others, of disease surveillance. It was unfortunate that news on the Guangdong outbreak was not picked up prior to 10 February 2003. She could not have read all the local and Mainland newspapers personally daily, and she had the assistance of colleagues in the provision of relevant cuttings from the press for her attention. In her capacity as the Head of the Division, she took responsibility for the inadequate monitoring of media reports on the AP outbreak in Guangdong before 10 February 2003. Learning from experience, they had now strengthened their efforts in this regard.

3.5 Dr CHAN and Dr YEOH became aware of the epidemic in Guangdong only on 10 February 2003 when no less than six newspapers in Hong Kong carried reports on the AP epidemic in Guangdong. Although Guangdong and Hong Kong had established an infectious diseases notification mechanism, it covered only four diseases, i.e. cholera, malaria, viral hepatitis and HIV/AIDS. AP was not included. According to the evidence given by Dr TSE, a standing arrangement then existed for sharing of experience and exchange of information on infectious diseases between the Hong Kong

Special Administrative Region and the health authorities in the Mainland. This comprised the exchange of monthly reports on the four notifiable diseases with Guangzhou, Zhuhai, Shenzhen, Hainan and Macao; and ad hoc meetings/conferences on disease surveillance. DH would also liaise with the Mainland health authorities by telephone, fax or email if there were any unusual reports of infectious diseases. DH, however, did not have any official information on the epidemic in Guangdong.

3.6 The Select Committee notes that the Bureau of Health of Guangdong Province issued a notice on 23 January 2003 attaching an investigation report on a pneumonia outbreak in Guangdong. The Select Committee also notes that the Health, Welfare and Food Bureau (HWFB), DH and the World Health Organization (WHO) were not recipients of the report and the report was not available to the public. Neither HWFB nor DH was aware of such a report. The Chief Executive (CE) of the Hospital Authority (HA), Dr William HO Shiu-wei, informed the Select Committee that HA did not have any official or unofficial communication channels with the health authorities in the Mainland regarding outbreaks of infectious diseases.

3.7 On 10 February 2003, Dr CHAN read about the press reports on the AP epidemic in Guangdong. Upon her instruction, Dr TSE Lai-yin telephoned the health officials in Guangdong to find out what exactly the position was. Not being able to reach any of the health officials by telephone, Dr TSE sent a letter in English to the Deputy Director of the Municipal Health and Anti-epidemic Station of Guangdong by fax on the same day, asking for details of the reported outbreak, including “the number of people affected, their age group, causative agent, signs and symptoms, treatment and fatality”, but there was no response to her letter or subsequent follow-up telephone calls.

3.8 Having received no reply from Guangdong, Dr TSE discussed the issue with Dr CHAN. Dr CHAN asked Dr TSE to continue with her efforts to establish contact with the Guangdong authorities. When SHWF contacted Dr CHAN to enquire about the outbreak in Guangdong, Dr CHAN told him that attempts had been made to contact the health authorities in Guangdong but there was no reply. SHWF asked her to contact the Ministry of Health in Beijing given that this had been the established channel of communication on

infectious diseases. Dr CHAN eventually contacted the Director General of the Department of International Cooperation, Ministry of Health in Beijing, on the telephone, expressing concern about the reported epidemic in Guangdong. The Director General promised to look into the matter. Dr CHAN reported this to SHWF.

3.9 On the following day, officials of the Guangdong Bureau of Health held a press conference informing the public that the “peak” of the outbreak was over.

3.10 On the same day, Dr CHAN instructed that enquiries be made with HA, private hospitals and sentinel doctors about any unusual pattern of influenza-like illness or pneumonia. All the reports were negative. She then held a press briefing and issued a press release in the afternoon on the reported outbreak in Guangdong and provided health advice for the public.

3.11 Dr YEOH also met with the media on 11 February 2003. He took the opportunity to disseminate further information gathered from the Ministry of Health about the outbreak in Guangdong, and urged the public to take general precautions to prevent droplet infection. On 13 February 2003, Dr YEOH convened a meeting with officials and experts from DH and HA to collate and review available information about the outbreak of AP in Guangdong and to monitor the progress of local surveillance of pneumonia/influenza cases.

3.12 As Hong Kong still had not received any official information on the epidemic directly from the Health Bureau in Guangdong, both the Deputy Director of Health, Dr LEUNG Pak-yin, and Dr YEOH discussed with Dr CHAN on two separate occasions the need to send a team or an official to Guangdong to learn more about the epidemic. However, Dr CHAN considered that she already had access to information on the epidemic in Guangdong direct from both the Ministry of Health and WHO which had an office in Beijing. She learnt that the Ministry of Health was already investigating the outbreak in Guangdong, and that WHO was also monitoring the situation and would further station a team of experts in Beijing. Moreover, she had received a briefing and subsequently an update on the

situation in Guangzhou over the telephone by Professor YUEN. Dr CHAN told the Select Committee that given the circumstances, it might be futile for DH to send an investigation team there. According to Dr CHAN, DH needed to concentrate its limited resources in Hong Kong for close monitoring and control of the local situation. The effectiveness of sending a team to Guangdong was also questionable in the light of the experience of DH's attempt to enquire with the provincial health authorities in Guangdong on 10 February 2003. Moreover, according to what the Guangdong Bureau of Health said in their press conference on 11 February 2003, the "peak" of the epidemic was over.

3.13 Dr YEOH informed the Select Committee that he accepted Dr CHAN's advice as, according to his understanding, infectious disease information was only released from Beijing, and he was aware of her liaison with and the progress of the work of the Ministry of Health and WHO as well as the information which was available through academic exchange between Professor YUEN and hospitals in Guangdong. Dr YEOH, however, admitted on reflection that interacting with Guangzhou could have enabled Hong Kong to obtain additional "soft intelligence" about the outbreak in Guangdong.

3.14 The Select Committee learnt from the Director of the Chief Executive's Office, Mr LAM Woon-kwong, that the Chief Executive of the Hong Kong Special Administrative Region had no knowledge about the difficulties in DH's communication with the Mainland health authorities regarding the AP situation in Guangdong. However, after the outbreak at the Prince of Wales Hospital (PWH), the Chief Executive contacted the Chinese Minister of Health on 18 March 2003 and later met with him in Hong Kong on 22 March 2003 with a view to enhancing cooperation between Hong Kong and the Mainland health authorities on information exchange and disease notification.

Strategy/contingency plan of the Hospital Authority for dealing with a large-scale outbreak of infectious disease

3.15 Having read about the press reports on the AP epidemic in Guangdong, the Convenor of the Task Force on Infection Control (TFIC) (renamed the Central Committee on Infection Control on 4 March 2003) of the Head Office of HA (HAHO), Dr LIU Shao-haei, discussed the matter with the Director (Professional Services and Public Affairs), Dr KO Wing-man. They agreed that a working group be set up under TFIC to advise HA on the surveillance and management of Severe Community-Acquired Pneumonia (SCAP). The working group, which was called Working Group on SCAP, comprised experts from clinical microbiology, internal medicine, intensive care, respiratory medicine and hospital executives. Its first meeting was held on 12 February 2003. Dr TSE of DH formally joined the Working Group on SCAP on 17 February 2003. The appointment of the Working Group on SCAP was announced in a memorandum issued by Dr LIU on 12 February 2003. He had requested public hospitals to report to the secretariat of TFIC by fax cases of Community-Acquired Pneumonia requiring “assisted ventilation or ICU/HDU care” through the same memorandum. On 13 February 2003, DH also requested private hospitals to make similar notifications of SCAP cases upon admissions to hospitals.

3.16 The Working Group on SCAP was later merged with TFIC as SARS raged in Hong Kong. According to CE of HA, Dr HO, TFIC was established in 1994 as part of HA’s infection control strategy. The role and functions of TFIC were as follows -

- (a) to develop and promulgate broad policy on issues relating to infection control throughout HA institutions;
- (b) to provide expert advice and support for HA on matters relating to infection control issues, including liaison with other concerned agencies;
- (c) to provide a forum for exchange of views, expertise and information for hospital-based experts in infection control,

including providing the infrastructure for surveillance, policy on occupational health where infection is of concern, and reporting and coordinating both internal and external responses to significant outbreaks of infection;

- (d) to support the continuing development and review of infection control practice in HA institutions; and
- (e) to advise on allocation of resources in support of effective infection control practice.

3.17 Through this Task Force, matters relating to infection control were reported to CE of HA, HA's Directors, and the Cluster Chief Executives at the regular HA Directors' Meeting. Under the infection control strategy, there was also an Infection Control Officer in each cluster who reported to TFIC. TFIC would set up special working groups when appropriate, to gather professional expertise to deal with specific outbreaks. When an outbreak demanded cross-cluster or territory-wide response, decisions would be made at the HA Director's Meeting. Major decisions were reported to the Chairman of HA, the HA Board and SHWF.

3.18 When asked by the Select Committee, both Dr HO and Dr KO mentioned in their respective responses that HA had the strategy on infection control as described in the previous two paragraphs. Dr KO told the Select Committee that it was not possible to put down in a contingency plan the specific measures that should be taken to handle an emerging infectious disease because the response required would depend on the mode of infection, the infectivity and the scope of the area affected by the disease. However, it was important to have a system in place, especially at the initial stage of an outbreak, to enable experts to collect and analyze the relevant information and to issue guidelines on how the disease should be handled.

3.19 The Select Committee noted that HA had drawn up contingency plans to handle civil disasters, aircraft accidents, biological and chemical attacks, radiological incidents and other disasters. Exercises had been conducted to test these contingency plans.

Analysis

Performance of the Department of Health in gathering information about the atypical pneumonia epidemic in Guangdong

3.20 The Select Committee has examined the performance of DH in gathering information on the AP epidemic in Guangdong and has concluded that DH's performance was inadequate. The Select Committee is of the view that DH should have taken into account the heavy passenger flow between Guangdong and Hong Kong when formulating policies on infectious disease surveillance and control. The Select Committee considers that the established notification mechanism between Guangdong and Hong Kong under which the Guangdong health authorities have obtained prior approval from the Ministry of Health in Beijing to exchange information on only four statutory notifiable infectious diseases directly with Hong Kong is inadequate to deal with any new infectious diseases of public health significance.

3.21 The Select Committee is of the view that despite the fact that there were over 10 reports in the Hong Kong press in January 2003 on the AP situation in Guangdong and on people there buying vinegar in a frenzy, DH was not alert to the possibility of an outbreak of infectious disease. The Select Committee considers that the public health officials in DH had not made effective use of such "soft intelligence" in the disease surveillance system. Had they taken adequate notice of such reports, it would be reasonable to expect that action to verify their accuracy would have been taken early so that necessary follow-up action could be taken without delay.

Precautionary measures to prevent the disease from spreading to Hong Kong

3.22 The Select Committee notes that Dr CHAN decided not to send a team or an official to Guangdong to find out more about the epidemic there because she thought that it was not certain whether useful information could be collected from the provincial health authorities. She said that it had been difficult to obtain information from officials of the Guangdong Bureau of Health, and that according to them the "peak" of the epidemic was already over. The Select Committee is of the view that in her capacity as head of the

public health authority in Hong Kong, Dr CHAN should have taken proactive steps to obtain information through other channels, apart from approaching the Ministry of Health in Beijing and WHO. Noting that the Department of Microbiology of HKU was able to organize a visit to Guangzhou within a day, the Select Committee considers that DH should also have explored other non-governmental channels to collect information about the AP epidemic in Guangdong.

Strategy/contingency plan of the Hospital Authority for dealing with a large-scale outbreak of infectious disease

3.23 The Select Committee notes that the investigation report on the pneumonia outbreak in Guangdong contained detailed information on infection control. The Select Committee also notes that the Working Group on SCAP was set up by HA in response to the outbreak of AP in Guangdong. Given that the AP outbreak in Guangdong had been widely reported in the media, and that according to the announcement made by the health officials in Guangdong at a press conference on 11 February 2003, nearly one-third of the patients suffering from AP in Guangdong were HCWs, HAHO should have taken measures in addition to the setting up of the Working Group on SCAP and the issuance of the memorandum on surveillance on SCAP, in order to prevent HCWs in public hospitals from being infected. The Select Committee considers that the Working Group should have at least attempted to make use of any formal or informal contact between public hospitals and their sister hospitals in the Mainland to obtain information about the AP epidemic in Guangdong. If the Working Group had done so, it might have been possible to obtain useful information for developing infection control guidelines in the event of the disease spreading to Hong Kong. The Select Committee is not satisfied with such inertia of HAHO and its failure to warn public hospitals of the higher-than-usual risk that HCWs might face when dealing with a similar outbreak in Hong Kong.

3.24 The Select Committee notes that prior to the SARS outbreak, HA had put in place an outbreak-control plan to deal with outbreaks of infectious diseases of public health significance. The Select Committee, however, notes that the outbreak-control plan had only provided a mechanism and strategies in

dealing with these outbreaks without any inclusion of essential elements, including patient movement, manpower and expertise deployment, and guidelines for closing or suspending certain services in a hospital. It is apparent to the Select Committee that such an outbreak-control plan was inadequate to deal with a large-scale outbreak of an infectious disease, particularly an unknown one. The Select Committee concurs with the SARS Expert Committee that HWFB, DH and HA should each put in place a major outbreak-control plan.

Performance and accountability

3.25 Dr TSE Lai-yin and the Disease Prevention and Control Division of DH failed to monitor reports in local and Mainland newspapers on the AP epidemic in Guangdong. Dr TSE, as the Head of the Division, should be held responsible for such a failure.

3.26 The Select Committee is of the view that Dr Margaret CHAN FUNG Fu-chun should also be held responsible for the failure of the infectious disease surveillance system to obtain the needed information in that she did not attach sufficient importance to the “soft intelligence” on the AP epidemic in Guangdong. Furthermore, it does not appear to the Select Committee that she had taken full account of the heavy passenger flow between Guangdong and Hong Kong when considering policies on infectious disease surveillance and control.

3.27 The Select Committee notes that Dr LEUNG Pak-yin raised the question of whether DH should send a team or an official to Guangdong to learn more about the AP epidemic there with Dr CHAN but the matter was not taken up further. The Select Committee is of the view that Dr CHAN should have explored other avenues to obtain information on the AP epidemic in Guangdong.

3.28 The Select Committee is of the view that while the primary responsibility for HA’s lack of a territory-wide contingency plan for public hospitals to deal with large-scale outbreaks of infectious diseases rests with the

HA Board and the HA top management, HWFB should be held responsible for such a failure in its role as HA's monitoring authority.