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Miss Flora TAI,
Clerk to Select Committee SARS,
Legislative Council,
Hong Kong SAR

Fax : 2248 2011

12th January, 2004

Dear Miss Tai,

Select Committee on SARS

I enclose my submission as requested by the Select Committee on 29th December, 2003.

Dr. Donald J. Lyon.

Encl.

Answers to questions posed by the Select Committee

1. The source case was admitted to the hospital via the A&E Department on the 4th March 2003. He had previously been seen in the A&E Department at PWH on the 28th February 2003, when he had a cough with sputum, myalgia and fever. He was not very sick on that occasion and was sent home after the medical examination. The healthcare workers who attended him did not take any extra infection control precautions on these two occasions, additional to standard infection control practices, since he was not regarded as a case of severe CAP as defined by the HA. Six healthcare workers from the A&E Department were infected during his two visits to the department.

2. It was mentioned in the media that there were significant numbers of persons developing CAP in Guangdong in February 2003. I was a member of the HA Task Force in Infection Control (TFIC) and was thus aware of the Working Group (WG) on Severe CAP which was established by the TFIC on 11th February, 2003. The WG on CAP established a surveillance programme for severe CAP on 12th February, 2003 which required HCEs of all HA hospitals to ensure that cases of severe CAP were reported to the WG using a specific report form. The TFIC re-circulated the Fact Sheet on Management of Severe Influenza Infections to HA hospitals on 12/3/03 followed by the circulation of FAQs on severe CAP on 21st February, 28th February, and 7th March. The Fact Sheet on Management of Severe Influenza Infections and FAQs on CAP advocated "droplet precautions" as the appropriate infection control measure for the nursing of severe CAP cases. I attended a joint meeting in HA Head Office of the TFIC and WG on severe CAP on 27th February 2003, at which information on the first 39 cases reported through the severe CAP surveillance programme were presented. With regard to action in NTEC, on 14/2/03 I sent a memo to the Hospital Chief Executives of the 3 acute hospitals in NTEC, PWH, AHNH & NDH, the Chiefs of Service in PWH, infection control nurses, deputy cluster ICO & Chairman of the NTEC Infection Control Committee to advise them of the HA surveillance programme, enclosed the Fact Sheet on the Management of Severe Influenza Infections, and recommended that severe CAP cases be nursed with droplet precautions. On 19th February, after the diagnosis of a H5N1 case in PMH, I sent an E-mail to PWH HCE, C(CS)s, GMs and Heads of Departments, HCE of AHNH and COSs of NDH (with a copy to infection control nurses & Chairman of Cluster Infection Control Committee) re-iterating my advice that severe community acquired pneumonia plus suspected/proven influenza should be nursed with droplet precautions. I also on the 19th February asked all the infection control nurses to ensure that all the severe CAP cases in their hospitals were nursed with droplet precautions. I sent the FAQs on severe CAP to members of the NTEC infection control teams; the infection control nurses, cluster co-ordinator for Pathology services, deputy ICO, and the Chairman of the Infection Control Committee.

3. In NTEC, there was at that time 1 Infection Control Officer (ICO), and one deputy ICO, based at PWH, plus Infection Control Nurses in each hospital. During the period of 1st February 2003 to 10th March 2003, information on severe CAP was circulated within the cluster as described in question 2. The Infection Control Officers of hospitals from different clusters met at meetings of the severe CAP working group and the TFIC held on 17th, 19th and 27th February at the HA Head Office. The topics discussed included the surveillance programme, laboratory diagnosis, possible drugs to be used for treatment, and infection control measures. The meeting of 19th February concentrated on the case of influenza A H5N1in PMH. The discussion on infection control concluded that the infection control measures for influenza, i.e. droplet precautions, would also be appropriate for severe CAP. In the period from 10th March onwards, I participated in meetings of the Central Committee for Infection Control (formerly TFIC) on 12th, 14th, and 18th March at which infection control precautions were discussed. The view of the CCID was that droplet precautions were appropriate for the care of these patients, and that it was important for sick staff to report illness promptly and seek medical assessment. After the meeting of 18th March, when information on the finding of the nebuliser use in the source case was presented to the CCID, the CCID recommended avoiding the use of nebulisers in patients with pneumonia.

4. The PWH source patient had fever and chest X-ray evidence of pneumonia, but was in stable condition when he was admitted. He was considered as a case of community acquired pneumonia and was admitted via the A&E department of PWH on 4th March, 2003. He was not considered a case of severe CAP and was thus not notified to HAHO and DH.

5. The healthcare workers who attended him did not take any extra infection control precautions, additional to standard infection control practices, since he was not regarded as a case of severe CAP. The patient admitted from the Union Hospital was admitted to the Intensive Care Unit of PWH, and was thus defined as a case of severe CAP. This patient was nursed in a single room, and the staff wore masks and gloves for patient contact. I was not aware of the case of Professor Liu at that time, and so had no knowledge of the precautions taken in that case.

6. I was telephoned by Dr. Philip Li, Deputy HCE of PWH, on the morning of Monday, 10th March, 2003. He told me that there were around 10 staff from ward 8A who had reported sick with a 'flu like illness. I also was informed at around the same time by my Infection Control Nurse that she had received a notification of significant numbers of sick staff in ward 8A. I asked the Infection Control Nurses to collect more information prior to our visit to the ward. The Infection Control Team and Virologist visited the ward around 11-15AM. Since I perceived that a significant problem was present and that there was a probable outbreak, I went to find the Chief of Service of Medicine, Professor Sung. The rest of the Infection Control Team stayed in the ward to gather more data on staff sickness. The initial impression was of a 'flu-like illness acquired by staff. There was insufficient information at that stage to make any assessments of how the

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infection was introduced and how it was spreading. The health care workers were advised that there was a probable respiratory infection spreading in the ward, and that additional precautions should be taken whilst working in the ward, including contact with patients. The hospital reviewed the infection control measures daily at the outbreak management meetings, and introduced new measures including N95 masks (11th March), gowns and gloves (12th March), enhanced environmental disinfection (12th March), and eye protection (15th March).

7. The closure of ward 8A was raised by the Chairman of the outbreak committee, Professor Sung, during the first outbreak meeting held at 12 noon on 10th March. I agreed with the measure. After clinical assessment of the patients, those patients who did not have evidence of fever and pneumonia were cohorted separately from the pneumonia patients in the front cubicles of the ward. Those patients who were not fit for discharge were transferred to another medical ward on 14th March. One patient out of the 7 patients in this group contracted SARS.

8. The issue of relaxing the visiting policy was raised at the lunchtime outbreak management on Tuesday 11th March by Prof. Sung. The nursing staff of the ward had received complaints from relatives regarding their exclusion from the ward. I agreed with the decision of the outbreak committee that it was acceptable to relax the visiting policy to one of visitor restriction; visitors would be advised not to enter the ward due to the risk of infection, but limited visiting by close family members would be permitted on the basis that they reported to the nurses before visiting for the provision of mask and hygiene advice. There were no visitors infected after 10th March.

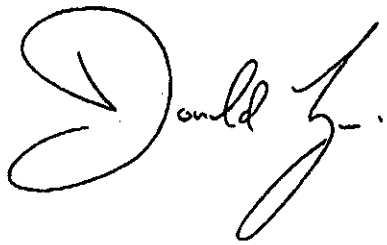
9. I recall that the issue was discussed by the outbreak management meetings during the 11th and 12th March. The consensus was that that for patients who were fit to be discharged, it was in their interest to be discharged from the ward since the ward was regarded as a hazardous area. The meeting took the view that the hospital did not have the authority to quarantine patients who were fit for discharge. I expressed the view that discharge under medical surveillance was a commonly employed public health strategy for patients exposed to an infectious disease but who were asymptomatic. The source patient of the 8A outbreak was confirmed on the 14th March. Of 7 patients discharged from 8A during 12-13th March, 3 were subsequently re-admitted to the hospital with SARS.

10. Although I was present at the outbreak meeting where the diversion of emergency medical patients was discussed, I consider that I was not consulted on this issue since it was an operational issue, outside my professional scope.

11. The source patient for ward E1 (being the first affected ward) was admitted to AHNH on 21st March, 2003. He had had fever for one week and had slight pneumonic changes on chest X-ray. The health care workers were following the standard NTEC infection control policies of the time which required surgical masks all the time, plus gloves and gowns for handling moist body sites. Nine

HCWs were infected as a result of attending to this patient. At that time, masks were made available to patients who requested them, and patients with respiratory symptoms were expected to wear masks. The staff tried to have this patient wear a mask, but he was uncooperative.

12. In the ad-hoc outbreak meeting held at AHNH on 3rd April, the proposal to re-open ward E1 as a SARS triage ward after terminal cleansing was supported by members of the meeting, including myself, and endorsed by the deputising CCE and HCE of AHNH. The SARS triage area was defined as an "ultra-high risk" area which meant enhanced levels of PPE for staff, and mask wearing for all patients. Other measures were enhanced environmental disinfection, increased distances between beds, and use of screens around patient cubicles. The transport of patients between hospitals was the responsibility of the ambulance service, which is under the Fire Services Department of the Government. Instructions to ambulance staff on protocols for patient transfer were issued by that department.



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