CONFIDENTIAL

Submission to the Legco Select Committee

By Dr. C.Y. Tse, CCE(KEC)
17 February 2004

I. My professional qualifications and experiences are as follows :

[redacted]

II. The areas of study were covered by the answers to the questions below and by my submission to you on 21.1.2004 on "performance and accountability of the management of Kowloon East Cluster to United Christian Hospital in the handling of the SARS outbreak".

III. Below are the answers to your questions :

1. The Kowloon Regional Office of the Department of Health (DH) was notified on 26 March 2003 by United Christian Hospital (UCH) that it had admitted 15 suspected Severe Acute Respiratory Syndrome (SARS) cases from Amoy Gardens. Who in UCH made the notification to DH and what details about the cases were provided? Why did UCH wait until 26 March 2003 to notify DH when UCH began admitting suspected SARS patients from Amoy Gardens on 24 March 2003? Who made the decision to notify DH on 26 March 2003 and not earlier? Were hospitals required to report such cases on a daily basis? If yes, why did UCH not comply with such a requirement?

2. Did UCH notify the head office of the Hospital Authority (HAHO) when UCH began admitting suspected SARS patients from Amoy Gardens on 24 March 2003? If not, why not? If yes, when was HAHO notified? Who made the notification and what were the details provided? What was HAHO's reaction? Did HAHO provide any advice on how the situation should be handled? If yes, what was the advice?

Answers 1 & 2 :

UCH had been following HAHO instructions in notifying severe CAP cases and suspected SARS cases to HAHO. The reporting to DH was to be made by HAHO, and UCH was not required to report directly to DH. The patient (A) from Amoy Gardens was admitted on 24.3.2003 with fever and cough. The husband and wife (B and C) from Amoy Gardens were admitted on 25.3.2003 afternoon with fever and cough. None of them had definite chest X-ray changes on admission, and thus at that time did not fulfill the criteria for notification to the SARS Registry, which required "presence of new radiological infiltrates compatible with pneumonia".

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MBBS(HK), MHA, FRCP(Edin & Lond), FHKCP, FHKCCM, FHKAM(Med)

- Cluster Chief Executive of Kowloon East Cluster since October 2001
- Hospital Chief Executive of United Christian Hospital since May 1994
- Acting Hospital Chief Executive of United Christian Hospital from May 1993 to April 1994
- Consultant & Head of Department of Medicine of United Christian Hospital from August 1984 to April 1993

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In the evening of 25.3.2003 till midnight, two families from Amoy Gardens attended our A&E Department with features of suspected SARS. I informed Dr. W.M. Ko of HAHO around midnight. We agreed that the situation would be reported to the SARS Round Up Meeting and to DH at 8:30 am on 26.3.2003. I then asked the cohort ward to check whether there had been earlier admissions from Amoy Gardens with suspected SARS to the ward. I was then told that patients A, B and C had addresses in Amoy Gardens.

The above situation was reported to the SARS Round Up Meeting at 8:30am on 26.3.03. Dr. W.M. Ko immediately reported the issue to DH by phone. After my report, I returned to the hospital. On my way back, I phoned Dr. L.Y. Tse of DH informing her about more details of the cases.

Later in the morning of 26.3.2003, I phoned Dr. S.Y. Lee of DH updating her that there were further admissions from Amoy Gardens in the morning of 26.3.2003. The patients A, B and C had CT scan done on 26.3.2003 and pneumonic changes were confirmed.

3. Were you aware of the outbreak of atypical pneumonia (AP) in Guangdong in February 2003? When did you learn about [redacted]'s case at Kwong Wah Hospital and the SARS outbreak at Prince of Wales Hospital? Did the management of UCH consider that AP/SARS patients may be admitted to UCH? Were additional procedures and measures put in place immediately to protect healthcare workers (HCWs) and patients in as well as visitors to UCH from being infected? If yes, what were these procedures and measures? If not, why not? Were infection control guidelines provided to staff? If yes, what were these guidelines and how were they disseminated to staff in UCH and within the Kowloon East (KE) Cluster? Were staff in UCH and within the KE Cluster given infection control training? If yes, what were the details of such training? If not, why not?

Answers 3 :

I was aware of the outbreak of atypical pneumonia in Guangdong in February 2003. I learned from news reports about staff infections in PWH and in KWH before HAHO made announcement on 11.3.2003 and 13.3.2003 respectively. The management of UCH was aware of the possibility of admission of AP/SARS patients to UCH. At that time, besides the reporting of severe CAP and following the infection control measures according to HAHO FAQ, the following additional measures were taken :

a. **Arranged a series of talks and video sessions on CAP for our staff, the first one on 14.3.2003 (announced on 12.3.2003).**
b. **Monitored the admission of less severe CAP from 13.3.2003.**
c. **Stopped volunteers service from 15.3.2003.**
d. **Designated Ward 6A to take all AP cases from 15.3.2003, and staff in 6A were to use N95 masks, eye protection, and disposable gowns.**
e. **Deferred less urgent elective cases from 17.3.2003, to prepare for any sudden surge in AP cases.**
f. **Issued posters on how to use N95 masks on 18.3.2003.**

Infection control guidelines of HAHO and local adaptations were provided to staff. The guidelines were disseminated to the staff by emails and/or hard copies through department heads. The department heads, on receiving the messages,

disseminated them to the front line staff by posting up or circulation of the hard copies, by emails, or by briefings. The HAHO guidelines and our local adaptations were also accessible on the HA website and UCH website respectively. The measures were supplemented by discussions in HCE open forums.

Staff in UCH and within KE Cluster were given infection control training. From March 2003 till end of June 2003, a total of 148 training sessions were held in UCH with over 6000 attendances.

The main themes included :

- **what is atypical pneumonia**
- **clinical features and management of SARS**
- **infection control measures for SARS**
- **use of PPE**
- **special infection control precautions for SARS for supporting staff**
- **work process re-design for SARS**

4. Did different wards in UCH have different levels of infection control? If yes, what were these levels and how were they determined? If not, why not? Were there problems with the supply of personal protection equipment? If yes, what were the problems and how were they resolved?

Answers 4 :

Different wards in UCH had different levels of infection control. The levels were divided into ultra-high, high and moderate. This was determined by the nature of the cases the wards were designated to take.

There had been low level stock in some personal protective equipments. HAHO was notified of the low level stock. HAHO arranged sourcing and delivery to UCH. Requests were made to other hospitals to transfer stock to UCH and the response was positive. The situation improved after central procurement by HAHO.

5. What were the guidelines for triaging patients at the Accident & Emergency Department (AED) at that time? How were patients displaying SARS symptoms followed up? To which wards were they admitted? Were any wards in UCH designated as SARS wards? If not, why not? If yes, please name the wards. When were they designated as SARS wards? Did they include Ward 12A? Were SARS patients being admitted to non-SARS wards in UCH during the SARS outbreak? If yes, what was the reason? Did any HCWs and patients in as well as visitors to such wards contract SARS as a result? Were non-SARS patients being admitted to SARS wards? If yes, what was the reason? Did the patients contract SARS as a result?

Answers 5 :

The HAHO guidelines for triaging patients at the A&E were followed. When patients presented with fever and cough, they would be assessed for any suspicion of SARS. If SARS was suspected, they would be admitted to the cohort wards. The wards designated to take suspected SARS cases were 6A, 6B, 8A and 9A. They were designated on 15.3.2003, 26.3.2003, 27.3.2003 and 31.3.2003 respectively. Ward 12A was not designated to take suspected SARS cases.

One suspected SARS case was admitted to ward 12A in the early morning of 26.3.2003 because no female bed was available in the SARS ward 6A at that time. The patient was put in isolation room in ward 12A and transferred to 6A later in the morning when a bed became available. Staff put on full PPE when attending to this patient in ward 12A. Other patients were admitted to non-SARS wards because they were not suspected to have SARS in the A&E Department, though subsequently SARS was diagnosed.

Please see my answer to question 7 regarding HCWs, non-SARS patients and visitors who contracted SARS.

Non-SARS patients were admitted to SARS wards because they had clinical features suspected of SARS in the A&E Department. No such patients contracted SARS as a result.

6. What were the guidelines provided to HCWs for wearing different types of masks, such as surgical and N95 masks? How did the hospital management ensure that HCWs were aware of these guidelines? How were the guidelines disseminated to all concerned? Were there requests made by HCWs to wear protection equipment that was supposed to offer higher levels of protection than that issued by your hospital (such as N95 masks) during the SARS outbreak? If yes, were these requests rejected? If yes, why were the requests rejected? Did any HCWs contract SARS as a result?

Answers 6 :

The guidelines provided to HCWs for wearing different types of masks followed the HAHO guidelines. We recommended using N95 masks in high risk areas. The dissemination of the guidelines to staff was described in the answer to question 3 above. Many training sessions were held as described in the answer to question 3 above. From 8.4.2003, departmental infection control coordinators and work place shift wardens were appointed to supervise and enforce infection control precautions among healthcare workers.

There were requests made by HCWs to wear protection equipments that were supposed to offer higher levels of protection than those required by the guidelines. The requests for using N95 masks were not rejected. Some requests to use goggles and disposable gowns for routine patient care in non-SARS wards could not be acceded to before the end of March 03, because of limited supply of the goggles and disposable gowns. However, gowns and goggles were available for high risk procedures. The causes of staff infections could be many, and it is difficult to incriminate the supply of PPE as the cause.

7. How many HCWs and non-SARS patients in as well as visitors to UCH were infected during the SARS outbreak at UCH? How and why were they infected? How many HCWs in Ward 12A were infected during the SARS outbreak at UCH? When was the first of such cases reported to you? Did you take nay follow-up action? If yes, what was the action? If not, why not? How and why was this HCW infected?

Answers 7 :

28 HA staff, 1 contractor staff, 9 non-SARS patients and 2 visitors to UCH were infected. 14 staff of ward 12A, the 9 non-SARS patients and the 2 visitors

were involved in the ward 12A outbreak. There were 3 likely index cases with cryptic presentations in ward 12A. One presented with fever and loin pain, one with mental confusion, and the third was a terminal Ca lung patient with little fever.

Out of the other 15 infected staff, 8 worked in SARS wards, which had managed over 180 SARS patients. They were probably infected during their work in the SARS wards. The source of infection of the remaining 7 staff was not exactly sure, but was probably work related.

The first infected staff was a doctor of Ward 12A and was admitted on 31.3.2003. I was informed on the same day. The infection control team started investigations on that day. Initially, we thought that the staff get infected when he admitted 6 SARS cases in the SARS ward (8A) when he was on call on 27.3.2003. When there were additional staff admissions from ward 12A on 1.4.2003, we considered that he could also be infected by the ward 12A outbreak.

8. When did UCH close all medical admissions during the SARS outbreak? Who made the decision and who were involved in the discussion? What were the considerations and why was the decision to close all medical admissions not made earlier? Did you require legal authority to do so? If yes, did you have legal authority to do so?

Answers 8 :

The first infected 12A staff was admitted on 31.3.2003 as described above. On 1.4.2003, there were 4 more ward 12A staff admitted for suspected SARS. I chaired a meeting of the outbreak control team in the evening of 1.4.2003, and then discussed with Dr. W.M. Ko about the situation. I and Dr. Ko jointly made a decision to stop female medical admissions after midnight on 2.4.2003 AM.

The consideration to stop male medical admissions was due to the heavy workload generated by the around 150 SARS cases in the hospital. The issue was discussed in the SARS Round Up Meeting taking into account the overall workload situation in HA. A decision was finally made on 5.4.2003 at the meeting to stop male medical admissions in UCH on 6.4.2003 together with the re-opening of PWH A&E on the same day. The stopping of medical admissions in UCH was an administrative decision of HA.

9. When was the "Cluster Meeting on Atypical Pneumonia" (later renamed "Cluster SARS Meeting") first organized? What matters/issues which concerned the KE Cluster and UCH were discussed at these Meetings and what decisions were made?

Answers 9 :

The first Cluster AP/SARS committee meeting was held on 17.3.2003. The committee was responsible for overseeing the management of SARS within KE Cluster. The Committee was chaired by me. I related the decisions and instructions of the HAHO SARS Round Up Meetings to the Committee. The Committee discussed the implementation of the instructions at the Cluster level.