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30 January 2004

Miss Flora Tai
Clerk to Select Committee
Legislative Council

Dear Miss Tai,

Questionnaire on Measures
Relating to Personal Protective Equipment
During the Outbreak of Severe Acute Respiratory Syndrome
Princess Margaret Hospital (PMH)

The questionnaire is completed and returned for your information and necessary action.

Yours sincerely,

Dr Lily Chiu
Hospital Chief Executive
Princess Margaret Hospital

# Questionnaire on Measures Relating to Personal Protective Equipment during the Outbreak of Severe Acute Respiratory Syndrome Princess Margaret Hospital (PMH)

## The Questionnaire

**Q2. Number of employees**

2.1 There were around 2,900 HA employees working in PMH at the peak of the SARS outbreak from 13/3 to 30/4.

2.2 There were 63 HA employees infected with SARS. The break down by ranks is as follows:

| Rank | No of Staff |
|---|---|
| Consultant | 1 |
| Senior Medical Officer | 1 |
| Medical Officer | 4 |
| Intern | 2 |
| Registered Nurses | 34 |
| Enrolled Nurse | 1 |
| Health Care Assistant | 4 |
| Ward Attendant | 6 |
| Artisan | 1 |
| Personal Secretary II | 1 |
| Clerk III | 1 |
| Clerical Assistant | 1 |
| Office Assistant | 1 |
| Workman II | 3 |
| Temporary General Care Assistant | 2 |
| Total | 63 |

2.3 There were about 240 contractor employees working in PMH at the peak of the SARS outbreak.

2.4 No contractors' employee working in PMH during this period was infected with SARS.

**Q3. Dissemination of guidelines on infection control measures in hospitals**

3.1 In line with the four FAQs and 23 Guidelines issued by HAHO mentioned in paragraph 1.2, we had provided photo illustrations to our employees to facilitate compliance.

3.2 Measures taken to make available and accessible the guidelines or instructions issued to the employees included:

- Six CCE Forums to all Kowloon West cluster staff were conducted from 19/3 to 9/4 to promulgate infection control measures and management of SARS
- In addition to the education programs by the infection control team, there were 95 training sessions on SARS from 20 March onwards conducted for 3360 staff.
- Other means included posting of guidelines on intranet, posters and signage, ward manual, e-mail and hotline enquiry. Educational video on SARS infection control was continuously run in Canteen, lobby and Community Health Resource Center.

**Q4. Non-compliance of guidelines**

4.1 With reference to the Infection Control audit conducted by HA during the SARS outbreak, the attached report showed the incidents of non-compliance of the guidelines or instructions on infection control measures issued. (Appendix I)

**Q5. Infection control measures - wearing of personal protective equipment (PPE)**

5.1 During the peak SARS outbreak, all acute wards in PMH were classified as high risk area. The infection control measures concerning the wearing of PPE adopted for the employees were in line with HA's recommended guidelines for working in high risk areas.

**Q6. Supply and distribution of PPE**

6.1 Throughout the SARS crisis, PMH managed the supply and distribution of PPE items in such a way as to ensure that every frontline worker had adequate provision and convenient access to the requisite PPE items in discharge of their duties. We worked closely with HAHO, cluster hospitals and various suppliers to ensure continuous supply and smooth flow of PPE items from the source to our end users. Although there were times when we had a slim stock of goggles, N100 masks, surgical masks and small-sized N95 masks, the overall supply of PPE items was considered adequate to meet operational needs during the whole crisis. A stock level of less than seven days didn't denote inadequacy as long as we could ensure that all clinical and supportive units would be provided with the necessary PPE.

6.2 (a) PMH kept HAHO informed of the supply and stock situation of PPE items. We had set up a monitoring system to ensure adequate supply of PPE items from HAHO and the Cluster Procurement Office. Moreover, a plan for resorting to local supplies was developed for exigent use in case of inadequate central supply.

6.2(b) 2 lots of goggles were purchased by the cluster even before HAHO's centralization of procurement. For N95 and surgical masks, HAHO had provided information on stock availability and potential suppliers of these items prior to procurement centralization. N100 was not an item stipulated by HAHO.

6.2( c ) The supply was steady after the HAHO had centrally coordinated the procurement of PPE items. However, to cope with urgent need for certain items, the Cluster Procurement Office had placed orders for certain PPE items for the frontline staff with exceptional approval from HAHO. Moreover, inter-hospital transfer of PPE items and liaison on additional supplies from vendors were arranged to cater for exigent use.

6.3 No employee at PMH had his/her requests for any of the PPE listed in Q6.1 being turned down

6.4 For complaints received from the employees about unavailability of PPE, please see attached Appendix II.

6.5 There was **no** occasion on which employees at PMH was not allowed to put on any of the PPE listed in Q6.1 while on duty.

6.6 There was **no** occasion on which requests from employees in PMH to put on their own PPE, that was considered to be offering a higher level of protection than what was laid down in the guidelines and instructions issued by HAHO in force at the time when such requests were made, had been turned down.

6.7 **Yes**, when HAHO issued / revised guidelines relating to PPE to require HA employees to put on mandatory or recommended PPE while on duty, there was adequate supply of PPE in PMH.

6.8 There was **no** allegation of abuse of PPE for personal use in PMH.

6.9 To meet urgent operational needs of users, PMH had requested QEH, PWH and TMH to transfer the following PPE items to PMH : N95(small and regular), P100 and Surgical Mask. These hospitals were very helpful and lent us their stocks.

6.10 We had **not** transferred PPE items to other hospitals outside our cluster.

## Q7. Contractors' employees

7.1 Prior to the SARS outbreak, the contractors were responsible for providing training on infection control measures for their own employees as part of the Occupation and Health training. Monitor was via monthly report and regular meeting with the contractors.

7.2 For the training referred to in Q7.1, there were monthly training, mainly on various infection control measures and practices.

7.3 Prior to the SARS outbreak, the contractors were responsible for equipping their employees with PPE. Monitor is by surprise checks and regular rounds with the site managers/supervisors of the contractors.

7.4 During the SARS outbreak, both PMH and the contractors had provided training on infection control measures for the contractors' employees. Hospital training would be more on train-the-trainer nature.

7.5 For the training referred to in Q7.4, they mainly covered the following aspects: awareness and precaution of SARS, use of PPE with demonstration, infection control measures, use of disinfectants, as appropriate.

| Training arranged by hospital for contractors (for supervisory & front-line staff) | Training arranged by various contractors for their employees |
|---|---|
| 14/3, 20/3, 25/3, 7/4, 8/4, 9/4, 10/4, 17/4 | 7-11/4, 14/4, 6/5, 7/5, 12/5, 10/6, 23/6 |

7.6 During the SARS outbreak, PMH had provided our contractors' employees with PPE in accordance with prevailing IC guidelines.

7.7 During the SARS outbreak, there was **no** occasion on which our contractors' employees were not equipped with the same standard of PPE as that for HA employees.

Appendix 1

**Princess Margaret Hosptial –Infection Control Inspection**

**Date of inspection: 7th May 2003**

**Audit/ Inspection type: Inspection**

PMH was turned into a hospital for receiving SARS patients referred from the four Designated Medical Centers of Department of Health since 29th March 2003.
12 clinical units inspected were all SARS wards during the inspection in mid May.

The HO Inspection Checklist was used as the tool for inspection.

**Quantitative aspects (26aspects)**

There were three aspects showing less than 80% compliance:

1. Infection Control Training for staff—3/12 units reported that some staff had not gone through Infection Control training.

2. Buddy system to remind staff – 8/12 units have shown not having such system to remind staff on infection control.

3. Improper practice involving the use of PPE—2/12 units were observed to have double gloving; and 1/12 unit was observed to have no hand washing before and after putting on mask.

One more question was excluded as it was not applicable:

1. Question 25—As staff of this SARS hospital were all wearing their Personal Protective Equipment (PPE) when they enter their wards, they needed no extra PPEs in their Emergency-trolleys.

Only Intensive Care Unit has been using sophisticated PPE and they were well maintained.

**Qualitative (6 aspects)**

1. Frequency of gloves changing—All units had good compliance.

2. Frequency of hand washing—All units had good compliance.

3. Staff's most concern issues—the most concerned issues were getting infected and cross infection to family and friends; 1 unit mentioned inadequate staff during night duty; and 1 unit had concerns on stock of masks and shields in this hospital.

4. The number of workplaces deployed to during the last 14 days—1 staff was deployed to three workplaces and 2 were deployed to two areas. The rest were all working in the same place during the last two weeks.

5. Frequency of uniform changing—6 staff had reported of wearing the same uniform for more than two days, 4 changed their uniform every two days and the rest washed their uniform daily.

6. Average distance between patients—6 units have reported of a distance of more than five feet, another 6 units reported a distance of between three to five feet.

**Actions taken by hospital:**

1. More training programs and workshops were organized for staff to improve various infection control practices.

2. The issue of staff being deployed to different wards frequently has been taken up by the ICN with Hospital Administration.

3. All staff were changed into working clothes before entering any wards. Uniforms were worn only outside clinical areas.

Appendix 1I

Staff Complaints on PPE, PMH

| Date | Media | Issues / Concerns | Resolution |
|---|---|---|---|
| 20 Mar 2003 | Letter to HCE | 1. Staff in Ward R5N were not supplied with N95 masks, whereas staff in other wards of LKB were given adequate supply. Staff in Ward R5N were only given surgical masks. 2. The name of those who purchased their own N95 masks would be noted down. | All surgical masks and N95 were fairly distributed between the four wards in LKB. Supply of surgical masks was adequate but the supply of N95 was tight. Supplies Dept & HAHO continued to source for N95 from different suppliers. Allegation in item 2 was not substantiated. |
| 21 Mar 2003 | Trade Union Meeting | Pathology staff was only given single-ply paper masks. | Pathology staff was provided with surgical masks. According to issuing record, 10 boxes of surgical masks issued to Pathology on 18.3.03. |
| 25 March 2003 | Phone-in Programme: Commercial Radio | Inadequate supply of N95 and gowns | PPE procurement process sped up. Supply of gowns was adequate but internal communication on provision of PPE needed to be enhanced To strengthen communication with wards, daily phone communication and confirmation on sufficient supply and quality feedbacks on PPE was made Information on provision of PPE was posted on public folder and SARS Message Board at PMH home page in April & May 2003 |
| 29 March 2003 | Oriental Daily News | Replacement of N95 for staff | Internal communication enhanced. Replacement guidelines were promulgated on notice boards. |

| | | | |
|---|---|---|---|
| Apr 2003 | Meeting with Mr MK HO, HAHO | Supporting staff (esp relieving staff) were unsure about what PPE they should wear. Different wards seemed to have different standards. | Standardisation of PPE amongst all SARS wards. Patrol stationed at the entrance of wards would ensure that all staff entering the ward was equipped with the appropriate PPE. |
| 9 Apr 2003 | Letter to HCE | Requested management to make the following improvements at LKB: Provide adequate supply of PPE | All PPE items were adequate apart from certain N95 sizes. Supplies Dept & HAHO continued to source for N95 from different suppliers. |
| 9 Apr 2003 | Letter to HCE | Requested management to make the following improvements at LKB: Provide adequate supply of PPE | Resolution same as above. |
| 17 Apr 2003 | Legislative Councillor The Hon LAU Wai-hing, JP | Inadequate supply of PPE to ICU staff | PPE procurement process sped up. Despite of international rush of procurement, efforts were made to ensure adequate supply of PPE. |
| 24 Apr 2003 | Telephone to AHA(HR) | Insufficient supply of PPE for: In-house cleansing staff at NQ. Staff were only given a surgical mask Staff of cleansing company who stationed at NQ | Since NQ was considered a low risk area, staff was not required to wear a full set of PPE when performing general cleansing duties. Basic PPE consisting of surgical mask, gloves and gown mauve were given to both in-house and contractor's staff. |
| 26 Apr 2003 | Letter to HAHO | Insufficient PPE and infection control support were provided to rehabilitation/hospice hospitals | Basic PPE consisting of surgical mask, gloves and gown were given. |

| | | | |
|---|---|---|---|
| 30 Apr 2003 | Letter to HCE & GM(N) | Insufficient supply of certain sizes of N95 masks. PPE items were locked up by nursing officers, hence not accessible by staff. | PPE items in LKB were adequate and accessible by staff. Fit test for N95 was arranged for staff. |
| Apr/May 2003 | Nursing/Supporting (No of enquiries: 68) | Staff expressed their worries about working in SARS wards. Lack of adequate PPE and training made their work in high-risk areas very stressful. | Appropriate PPEs and training were provided to staff. Emotional support was provided to staff. |