

## **PMH SARS Report – Medicine & Geriatrics Department**

### **Key Issues**

#### **A) Mass Influx of Patients**

- Before 29.3.2003, already admit 100 SARS patient
- Within 1 week, admit 535 patients with a daily admission of 80 patients
- Maximum of 602 in-patients (433 SARS patients) as at 6.4.2003
- Maximum 43 SRS patients in ICU at the week starting 9.4.2003
- As at 27.5.2003, totally admit 1032 patients of which 584 are confirmed SARS patients.

#### **B) Inadequate Preparation/Planning**

- Announced by HA designated SARS hospital with 1000 beds on 27.3.2003.
- Given 48 hours for preparation
- A&E closed at 0:00 hour on 29.3.2003
- Start admitting patient at 9:00 hours on 29.3.2003

- Wards not yet fully evacuated but already start receiving patients from all sources.
- EF block fill-up on 31.3.2003  
ABCD block start admitting patients on 31.3.2003.
- Maximum number of SARS wards: 20
- Staff physically and psychologically not prepared for the flooding in large number of SARS patients.
- Infection Control not well prepared.
- The unforeseen circumstances and the highly contagious disease have aroused strong staff sentiment, emotion and stress
- Daily operational meetings to cope with the demand of patient load, patient management, manpower, infection control, PPE and other available resources.

### **C) Inadequate Intensive Care Support**

- Rapid influx of patients, many are very ill.
- Huge demand for intensive care support
- PMH ICU team members were knocked down by SARS illness one after the other
- ICU teams from other hospitals including CMC, UCH, PWH, QEH contributed support to PMH ICU
- 5 MOs from M&G deployed to ICU on 11.4.2003.

- F4 ward was converted into a stepped-down HDU on 11.4.2003.
- QMH, PYNEH and TMH offered beds for 15 SARS patients potentially requiring intensive care to relieve the ICU workload in PMH.

#### **D) Infection Control**

- HA/PMH infection guideline
- Training seminar in PMH
- Designated coordinator from Department of M&G
- To provide practical demonstration sessions from new comers/HO on their first day of duty.
- To provide mentor to supervise infection control and clinical management
- Cohort patients with suspected and clinical SARS in cubicles and later in isolated rooms/cubicles
- Attention had been given to patient number, ward ventilation and environmental setting
- Universal precaution for clean and dirty wards
- Special precaution in high-risk procedures
  - e.g. Renal patients on haemodialysis
  - Endoscopy
  - Intubated procedures
  - Patients on Ventilators

Patients on chest drain for pneumothorax

- Infection Control Audit
- Reinforce infection control in wards by setting up a policing system

#### **E) Staff Infection**

	Confirmed SARS Before 29.3.03	Confirmed SARS Starting from 30.3.03
Medical	0	2
Nursing	0	18
Supporting	0	1 (HCA)

#### **F) Coordination**

##### Inter-hospital

- From 17.3.03 to 28.3.03 support NTE medical in-patients
- From 19.3.03 to 28.3.03 support SARS patients from KWC, NTE and UCH.

- Coordinate manpower support from KWC and other clusters
- Transfer out medical cases to LKB, YCH, CMC, OLMH, RH, GH, TMH, QMH before 29.3.2003

#### Inter-department

- Coordinate daily operation issues e.g. consultations and urgent support
- Coordinate 7 HOs support from other departments, including O&T, O&G, Paed.

### **G) Manpower Support**

A total of 29 doctors from PWH, WTSH, KWC and RH, 81 nurses and 7 HOs were deployed to join the medical team to fight against SARS.

### **H) Communications**

#### *a) Staff*

Due to huge workload and change in daily operation and duties, good communication is necessary to maintain medical services to the in and out patients.

- Media     -   Internal memos  
             -   Intranet

- M&G Website
- Daily M&G Department SARS Meeting
- Daily M&G Department Nurse Meeting
- Medical Staff Forum
- Notice Board in MO rest areas and MO Offices
- Designated consultant/SMO for HO duties and communication

*b) Patients*

For psychosocial support, clinical staff and patient relative can seek assistance from

- Help desk and hotlines manned by CRO staff
- Medical Social Workers
- Chaplaincy

Communication between patients and their relatives

- Hospital set up a Patient Service Counter in ACC to provide enquiry service on patients' conditions and other necessary assistance for patients' relatives.
- MOs in-charge were advised on 16.4.03 to contact relatives whenever there was change in condition of patients as needed.

## **I) SARS Task Group**

Overall Coordinator		Dr K L TONG
Manpower		Dr. JY Lai Dr. YC Choi Dr. H Chan
Staff Duty		Dr. JY Lai
Team Structure		Dr. WC Yu, JY Lai, CB Law
On-call duty	MO HO	Dr. WC Yu Dr. BC Tong
OPD Duty		Dr. Hilda Chan
Clinical Management		Dr ST LAI
Expert group HA/DH		Dr WC YU
LKB		Dr. TK Kong
Staff Concern/communication		Dr. ST Lau, Dr. H Yuen

Staff Forum	Dr ST LAU
Ward Operation	Dr. CB Law
Communication to frontline staff	Dr. CB Law, Ms. Venus Yip
Infection Control Coordinators	Dr. KY Ying, Dr. KK Lau
HO Mentor	Dr. ST Lau, Dr. H Chan
Staff Quarters	Dr. WS Leung, Dr. KS Fung
PPE Representative	Dr. KY Ying
Information Officer	Dr M K SO
Nursing manpower/ Ward operation	Ms. Alice Chan/Ms. Rebecca Tsui/ Ms. Betty Lam
SARS Duties	All staff by rotation



## **J) Staff Training**

Clinical presentation and experience sharing in Staff Forums

Clinical protocols and management guidelines

One day Training Workshop for new recruits

Mentors for new recruits

## **K) Outcome Measures**

	<u><i>As at 27.5.2003</i></u>	
	<u>Number</u>	<u>Rate</u>
Total admission	1032	
Confirmed SARS patients	584	56.5%
Ventilated	67	6.5%
Death	58	9.9%

## **L) Lessons Learnt**

We need good and advanced planning and preparation to review any major infection outbreak.

- Regular training and drill are necessary to equip the staff with adequate knowledge and protection against infective diseases.
- Medical Wards are too congested
- There should be adequate spacing in-between beds
- Ward ventilation in couple with central air conditioning should be improved
- Single rooms with toilet and shower facilities are required to isolate suspected cases to prevent cross infection
- Adequate medical and nursing manpower is necessary for tackling highly contagious infectious.
- We need stringent infection control guidelines and training for high risk procedures like resuscitation, BIPAPS and endoscopy.
- Separate clean and dirty transfer SARS and non-SARS patients to prevent cross infection.

## **M) Research Studies**

### Completed/Ongoing/Proposed Studies of SARS

Published papers and those under preparation:

- “Coronavirus as a possible cause of severe acute respiratory syndrome” by JSM Peiris, ST Lai, LLM Poon, Y Guan, LYC Yam, W Lim, J Nicholls, WKS Yee, WW Yan, MT Cheung, VCC Cheng, KH Chan, DNC Tsang, RWH Yung, TK Ng, KY Yuen and the SARS study group. Lancet 2003; 361: 1319-2
- “Lung pathology of fatal severe acute respiratory syndrome” by JM Nicholls, LLM Poon, KC Lee, WF Ng, ST Lai, CY Leung, CM Chu, PK Hui, KL Mak, W Lim, KW Yan, KH Chan, NC Tsang, Y Guan, KY Yuen and JSM Peiris. Lancet 2003; 361: 1773-8.
- “Outbreak of SARS in HKSAR: case report” by MMW Chan, WC Yu. BMJ 2003; 326: 850-2.
- “Factors for outbreak of SARS in hospitals” – already accepted by BMJ and to be published (ST Lai and Prof Moira Chan of HKU)
- Prognostic factors - 2 papers have been written and submitted (KW Choi, PT Tsui)
- Pulmonary function, pulmonary rehabilitation and QOL (WC Yu), psychological disability (KK Lau and YK Ng of KCH)
- Serology of staff (Harold Lee, TN Chau)
- Duration and site of excretion of virus in patients (YK Tso, WS Leung)
- Comparison between PCR +ve and PCR -ve cases (TN Chau)
- Validity of serology test (WC Yu and WL Lim of GVU)

- Case-controlled study of treatment outcome (CB Law)
- Cardiovascular studies (WS Leung)
- Diarrhoea and other GI aspects of SARS (CP Kwan)
- HBsAg and liver dysfunction in SARS (ST Lai, TN Chau and Prof CL Lai of HKU)
- Nephrological studies in SARS (WK Tsang)
- Neurological complications of SARS (KK Lau)
- Haematological features of SARS (Harold Lee)
- Endocrine features of SARS (KW Chan)
- Rheumatological features of SARS (KY Ying)
- Features in geriatric patients (KM Yeung, TK Kong)
- Radiological features of lung in SARS (TN Chau and PO Lee of Xray)
- Pregnancy and SARS (ST Lai and SF Wong of O&G)
- HIV + SARS case report (TY Tsang and KH Wong of DH)
- Use of Pentaglobin in SARS (ST Lai)

The updated membership of the group is:

ST Lai (Chairman)

WC Yu (Vice Chairman)

Core group members - KW Choi, TY Tsang, YK Tso, TN Chau, WL Tong, MC Chiu

Group members - JY Lai, TK Kong, CB Law, KK Lau, WK Tsang, WS Leung, PT Tsui, KW Chan, CP Kwan, KC Kwong, MK So, KM  
Yeung, KY Ying, Harold Lee, TY Wong

<b>Date</b>	<b>Marked Sequence of Events</b>	<b>Operations/Ward Arrangements</b>
8.3.03	Some ward staff in one of the Medical Wards in PWH, Ward 8A, have presented with symptoms of fever and upper respiratory tract infection.	
17.3.03	<ul style="list-style-type: none"> <li>- SARS cases of non-ward 8A origin transferred to PMH</li> <li>- Our cluster hospitals, including PMH M&amp;G Dept. supported other medical cases from NTE.</li> </ul>	<ul style="list-style-type: none"> <li>- E5, E6 &amp; F6 to receive SARS cases of non-ward 8A origin from PWH.</li> <li>- Cease clinical admission and elective procedures in the coming two weeks to make rooms for accepting cases from NTE.</li> <li>- Cohort patients suffering pneumonia in one cubicle in the acute medical wards.</li> </ul>
19.3.03	<ul style="list-style-type: none"> <li>- The AED service in PWH suspended w.e.f. mid night 19.3.03. PMH supported AHNH when their bed occupancy was full.</li> <li>- Admitted SARS cases from NTE cluster (except PWH staff and Medical Students) &amp; YCH.</li> </ul>	<p><u>Arrangements made to discharge existing patients</u></p> <ul style="list-style-type: none"> <li>a) Decant to 19 beds in LKB</li> <li>b) WTSH(Chest) to take over TB patients, particularly open cases, stable COPD, asthma patients.</li> <li>c) OLMH to take over some stable patients, e.g. DM, strokes without disposal problem.</li> </ul> <p><u>Arrangements for accepting M&amp;G patients</u></p> <ul style="list-style-type: none"> <li>- Continued to take patients attending PMH A&amp;E till M&amp;G wards are 120% full. Afterwards the M&amp;G cases will be admitted into CMC and YCH according to the ratio 1:1</li> </ul> <p><u>Arrangements for handling SARS patients</u></p> <ul style="list-style-type: none"> <li>a) Consult ID team for suspected cases</li> <li>b) Highly suspected/confirmed cases: E5/E6, screened by the ID on call MO (during office hours) and MO4 (after office hours) before admission.</li> <li>c) Suspected cases : F6 and when full, to admit to ELG2, respiratory ward.</li> </ul>
20.3.03	<p>As the occupancy of the M&amp;G Dept reached 100%, new admissions of M&amp;G cases of non- suspected SARS had to be diverted out so as to maintain some capacity to admit new referrals of suspected SARS cases. KWC implemented the following measures starting at 2:00 p.m. of 20.3.03:</p> <ul style="list-style-type: none"> <li>a) PMH M&amp;G continued to receive patients suspected/confirmed to be suffering from SARS from PMH AED and transferred in from other</li> </ul>	<p><u>Ward/operational arrangements</u></p> <ul style="list-style-type: none"> <li>a) Ward EF4 planned to be converted into a Pneumonia Wards to admit suspected SARS patients by Monday, 25.3.03 and the cases are to be taken over by the ID team together with the input from the respiratory team. (Remarks : However, F6 was full on 23.3.03, EF4 thus started to take in suspected/confirmed SARS case on 23.3.03)</li> <li>b) The maximum bed capacity of each ward to be temporary reduced to 28 with 6 beds in one</li> </ul>

Date	Marked Sequence of Events	Operations/Ward Arrangements
	<p>hospitals in the cluster.</p> <p>b) AHNH/NTE AED directly admitted M&amp;G patients into YCH M&amp;G</p> <p>c) PMH AED diverted some of the patients requiring M&amp;G admission into the M&amp;G of CMC.</p>	<p>cubicle.</p> <p><u>Arrangements made to discharge existing patients</u></p> <p>a) LKB- stable cases, Priority has assigned to patients of EF4 and EF1</p> <p>b) WTSH(Chest)</p> <p>c) OLMH – agreed to accept 4 - 5 stable patients per day, e.g. DM, stroke patients without disposal problem.</p> <p><u>Arrangements for handling non-SARS cases</u></p> <p>a) No emergency admission from 8:00 p.m. on 20.3.03.</p> <p>b) EF1 started admitting emergency cases under unit B. Hematology and acute stroke beds remained. Other subspecialty patients either be discharged or transferred back to the parent units.</p> <p>c) Clinical cases admitted into the parent wards of EF123. If any of the ward occupancy reaches maximum total patients of 48, further admissions will be over flow to another medical ward.</p> <p>d) ELG1 served as the buffer ward and CCU.</p> <p>e) CCL suspended its service from 25.3.03</p> <p>f) Patients transferred back from ICU and other Departments were directed to the parent wards.</p>
26.3.02	Follow up of convalescent cases of SARS to be started on 29.3.03 at K7 with the clinical code of MIDH.	<p><u>Ward/operational arrangements</u></p> <p>Unit ABC rotated to receive patients from EF4 after proven not SARS case. These patients will be cohorted in the pneumonia cubicles of the General Medical Wards.</p>
27.3.02	<p>Open forum with Prof. PC LEUNG</p> <p>HA informed the public that PMH is actively re-arranging hospital services in preparation for receiving patients with symptoms of SARS referred from DH's designated clinics. Details of arrangement announced would be announced on 28.3.03.</p>	

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28.3.03	<p>The press release mentioned that:</p> <p>a) PMH will receive patients with symptoms of SARS referred from DH's Medical Surveillance Centres and other hospitals. The service re-arrangements of PMH include decanting some of the PMH in-patients to other hospitals in KWC, re-deployment of medical and nursing manpower, review and stock-taking of the required medical facilities and drugs, etc.</p> <p>b) The service of PMH, AED would be suspended w.e.f. 00 hours of 29.3.03.</p>	<p><u>LKB Beds</u></p> <ul style="list-style-type: none"> <li>- The transfer of Central Infirmery Waiting List (CIWL) patients from YCH suspended, the 23 beds in R4NA which were relocated from YCH to PMH on 17.3.03 would be resumed.</li> </ul>
29.3.03	<p>PMH admit all SARS patients from 9:00 hours.</p>	<p>Contingency Measures for admission of SARS patients into M&amp;G are detailed as follows:</p> <p><u>Admission of SARS patients</u></p> <ul style="list-style-type: none"> <li>- SARS patients of different sources would be separated in different cubicles.</li> <li>- Sources : AED admission, direct admission from private hospitals, other hospitals.</li> </ul> <p><u>Evacuation Plan</u></p> <ul style="list-style-type: none"> <li>- Target to clear existing patients within 1 week.</li> <li>- EF2 → EF1 (29.3.03)</li> <li>- EF1 → a pair of ward in AB5 or CD5 (30.3.03)</li> <li>- ELGI &amp; II reserve to receive very ill patients.</li> <li>- Advance notice given to KWH, OLMH &amp; CMC to transfer out cases of cardiac or on ventilator.</li> <li>- CCU cases → KWH (clear up by 1.4.03)</li> <li>- Cardiac cases → AB5/CD5 (clear up by 2.4.03)</li> <li>- Discharge not proven SARS cases</li> <li>- To decant Hematology cases to Block P, if necessary</li> </ul> <p><u>Admission sequence</u></p> <ul style="list-style-type: none"> <li>- At the initial stage, random admission is allowed</li> <li>- EF3 started to admit cases on 29.3.03</li> <li>- EF2 was the stand-by ward.</li> </ul>



Date	Marked Sequence of Events	Operations/Ward Arrangements
		<ul style="list-style-type: none"> <li>- Prepare to provide consultation for HDU.</li> </ul> <u>Clinical Admission for SOPD cases</u> <ul style="list-style-type: none"> <li>- to be kept at a minimal</li> <li>- General Medicine Cases → CMC, KWH, OLMH, YCH on rotation basis.</li> <li>- Cardiac Intervention Procedures → KWH</li> <li>- Endocrine cases → OLMH</li> <li>- Hematology cases, G.I. Bleeding → CMC</li> <li>- Respiratory Medicine/Geriatrics → General Medicine</li> <li>- Renal cases → Block P</li> </ul> <u>ACC Arrangement</u> <ul style="list-style-type: none"> <li>- Day procedures, e.g. Rheumatology → P1</li> <li>- Out patient → K7 (to arrange DM nurse in K7)</li> </ul> <u>LKB Arrangement</u> <ul style="list-style-type: none"> <li>- Cases transferred back from LKB to EF1 on 29.3.03 &amp; to AB5/CD5 tomorrow via Clinical Admission for the time being.</li> </ul>
31.3.03	<ul style="list-style-type: none"> <li>- Sudden flux of SARS cases.</li> <li>- PMH directly admitted patients from other HA AED.</li> <li>- Cases from GPs &amp; private hospitals and surveillance centre to be screened by AED, PMH.</li> <li>- All specialist outpatient services reduced. Clinical consultation provided only when patients were assessed to have clinical needs. For other patients, only provided drug refill service.</li> <li>- Geriatric Day Hospital service at LKB suspended.</li> <li>- WTS hospital to accommodate SARS patients who were on rehabilitation.</li> </ul>	<u>Ward Arrangements</u> <ul style="list-style-type: none"> <li>- Opening of wards in Block ABCD. C5 had been opened and followed by ABCD3</li> <li>- D5 took up patients when F1 was full.</li> <li>- All M&amp;G wards had been cleared for SARS patients except ELG1/2 were designated to be the holding wards.</li> <li>- (Proposed Structure of ID wards for SARS patients)</li> </ul>
1.4.03		C5 was full. B3 started to admit patients and followed by ACD3.
2.4.03	- HAHO announced that all acute wards in public hospitals, including PMH	- AB4 and AB5 to receive patients

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	would not be opened to visitors from 9:00 pm on 3 April 03. Members of public are advised not to visit public hospitals. - CCE conducted a staff forum with presentation by Prof. J Sung and its ICN.	- ELG1 decanted for admitting serious SARS patients. ELG2 also started decanted patients to non-KWC cluster hospital with ventilator care, e.g. Ruttongee & Grantham - A revised LKB operation manual on patient admission and transfer for KWC was issued.
3.4.03		<u>Ward Arrangement</u> - EF3-5 were admitting ward for serious SARS patients. - Male ventilator cases to be moved from ELG 2 to ELG1 by phase in one week.
4.4.03	A new medical ward in YCH was opened in YCH.	- One PMH SMO deployed to man the new ward in YCH. - F4 stop admission as a cubicle there had been designated for ventilator cases for mix sex in the interim period. Full airborne protection for staff. - A5/C3 were the main admitting ward for SARS patients - AB4 were planned for next admission ward. - Responsible for SARS patient with expecting delivery (>24 week pregnant) during the illness and NOT early pregnant SARS patients - ACC DM service suspended. DM cases FU in general medical clinic. - LKB : transfer back of acute case to KWH, resuscitation case to YCH.
7.4.03	- A healthcare team from PWH with Prof. Joseph Sung and 2 physicians joined the SARS team - WTS chest team redeployed to PMH	
8.4.03	WTS started to take SARS convalescent cases; 84 beds were ready	- A medical team of 1 COS, 2 SMOs and 7 MOs were redeployed to help PMH to fight against SARS patients - SARS cases may be discharged to WTS after 10 days after onset of symptoms, afebrile for 4 days whichever is longer and CXR improving.
9.4.03	- QMH, PYNEH and TMH offered a few of SARS beds for PMH with the view to support those patients with potential ICU care. - KWC Basic Physician Trainees joined the PMH SARS team.	- A medical team of 2 family medicine trainees and 6 BPTs joined the medical team of PMH. 5 FM trainees also started full/part time in the Medical OPD. - HOs were responsible for escorting patients. - AB4 started receiving patients when the admission to EF1 was full.

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		<ul style="list-style-type: none"><li>- To add one physician and one MO to AB6 as there were a total of 32 beds.</li></ul>						
10.4.03	PMH ceased SARS admission except from YCH and DH							
11.4.03	Deploy manpower to assist ICU	<ul style="list-style-type: none"><li>- 3 MOs from the dept of M&amp;G redeployed to work in ICU on 11.4.03 and a total of 5 MOs on 14.4.03.</li><li>- EF1 and B6 vacated to deploy nursing manpower to ICU.</li><li>- AB4 were the admission wards</li><li>- F4 was assigned to be a temporary ventilator ward and to be decanted from 11-13.4.03. The respiratory team was in charge of the operation of the ward F4. F4 also accepted patients requiring potential ventilator support. Elective intubation was done in F4.</li></ul>						
12.4.03	<ul style="list-style-type: none"><li>- SARS cases did not accept SARS cases w.e.f. mid-day of 12.4.03. Admission of SARS cases of other hospitals are as follows:<table><tr><th>Patient attended</th><th>Transferred to</th></tr><tr><td>YCH, CMC, DH Surveillance centre</td><td>TMH</td></tr><tr><td>OLMH</td><td>KWH</td></tr></table></li><li>- Cases confirmed after admission were to be managed by individual hospital.</li><li>- A&amp;E services suspended but 24-hour staff clinic remained.</li><li>- New SARS staff cases was planned to be hospitalized in QMH.</li><li>- Withhold the decision of transferring M&amp;G patients aged below 25 years old to paed. Wards</li><li>- An ambulance team from AED, QMH helped to escort several patients to QMH.</li><li>- As for intubation, ICU offered support at day time.</li></ul>	Patient attended	Transferred to	YCH, CMC, DH Surveillance centre	TMH	OLMH	KWH	<ul style="list-style-type: none"><li>- EF1 closed for cleansing</li><li>- CEU provides SARS in-patient services</li><li>- To give more time allowance for staff to adapt the recent changes, existing admission wards remained status quo. The call list also remained unchanged.</li><li>- Cases returned from WTS were admitted either parent wards or admission wards of AB4. (AB4 might be closed next week.).</li><li>- Elective intubation was done in F4 by the referring team. Respiratory team took over the ventilator support and subsequent care in F4.</li><li>- After office hrs, MO4 was responsible for the ward F4 while intubation of cases taken over from other SARS wards were done by the parent ward on call MO.</li><li>- Dr K Y YING and a Nurses Specialist to coordinate infection control measures in F4.</li></ul>
Patient attended	Transferred to							
YCH, CMC, DH Surveillance centre	TMH							
OLMH	KWH							
14.4.03		<ul style="list-style-type: none"><li>- Close AB4, EF1, B6 and CD5 (patients decanted to AB5). Dr J Y LAI to adjust the team size.</li></ul>						

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		<ul style="list-style-type: none"> <li>- Cases returned from WTS were admitted either parent wards or ABCD3.</li> <li>- The existing Admission System remained till the end of April 03.</li> <li>- To open A2 for ICU admission.</li> </ul>
16.4.03		<ul style="list-style-type: none"> <li>- Doors not to be installed in ward cubicles of EF block</li> <li>- Doors of ward entrance should always closed</li> <li>- Direction of air-flow was not towards nurse station.</li> </ul>
17.4.03	YCH transfer confirmed SARS in-patients to PMH with immediate effect.	<ul style="list-style-type: none"> <li>- EF2 were the admitting ward on 17.4.03 and Easter holiday</li> <li>- Start decanting EF3 patients to EF1 which will become the admitting ward. EF3 was planned to vacate for cleansing. Cleansing work in EF Block would be proceeded.</li> <li>- SARS FU clinic would be moved to AED. (Afternoons of Tue &amp; Friday). Dr S T LAI to decide the quota, patient flow &amp; manpower coordination.</li> <li>- 2<sup>nd</sup> round medical staff to collect suitable cases for ICU care to on-call consultant for prioritization.</li> <li>- Guidelines on transfer of SARS patients from WTSH to acute hospitals issued.</li> <li>- Revised version on Laboratory Testing for SARS issued</li> </ul>
22.4.03	<ul style="list-style-type: none"> <li>- It was noted that the mortality rate of SARS patients in PMH was around 4.6% which was better than data from other hospitals.</li> <li>- It was suggested that database from ID team may be used as a common data pool for uses of all medical staff.</li> </ul>	<ul style="list-style-type: none"> <li>- Starting planning for admitting general medical cases in mid-May (Right size of medical wards, resume the support from ICU and other subspecialties).</li> <li>- A MO seconded to AED PMH rejoined M&amp;G</li> <li>- Vacate EF3 on 23.4.03. Vacate D3 on 25.4.03.</li> <li>- Reserve 2 rooms each in C6 and E5 to admit PMH staff for suspected SARS cases directly from AED staff clinic.</li> <li>- EF2 were still be the admitting ward for confirmed cases from YCH and transfer back cases from WTSH. ICU trans-out cases go to F4.</li> <li>- Set up contingency plan for opening a pair of admitting ward in EF1 or EF3 if we need to admit SARS cases directly from AED.</li> </ul>
23.4.03	- 5 family medicine medical staff on SOPC duty left PMH	Decant ELG1&2 on 27.4.03 and would be designated as clean area after cleansing.

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	<ul style="list-style-type: none"> <li>- A total of 7 Interns deployed. Different staff rotation pattern and duty roster from Surgical, Orthopedics and O&amp;G noted.</li> <li>- All staff in a ward in CMC required quarantine. PMH was needed to deploy 25 nursing staffs to CMC.</li> </ul>	
24.4.03	<p>With immediate effect:</p> <ul style="list-style-type: none"> <li>- all confirmed and suspected SARS patients at YCH transferred to PMH</li> <li>- all suspected SARS patients referred by the 4 designated Medical Centres of Department of Health to be sent to PMH</li> <li>- 100 infirmity/convalescence patients to be transferred to LKB in 3 days' time. 2 PMH MOs would be deployed to LKB in the coming 2 days.</li> <li>- Transfer PMH medical staff to man the semi-acute ward in YCH on 28.4.03. (1 Physician, 4 MOs)</li> <li>- WTS Chest Team left PMH</li> <li>- LG1 &amp; 2 staff to help the OPD service.</li> </ul> <p><u>Future planning</u></p> <ul style="list-style-type: none"> <li>- Open 4 medical wards in ABCD on 12 May 03 after disinfection. PMH staff in YCH would come back to man the medical ward.</li> <li>- Hospital planned to convert F4 as HDU for SARS patients. Thus to vacate F4 for renovation when date was set</li> <li>- Re-open AED in July 03.</li> </ul>	<ul style="list-style-type: none"> <li>- Vacate D3. To consider decant C3 next week.</li> <li>- EF2 were still be the admitting wards on 24.4.03. EF3 with maximum of 18 beds to be the admitting ward at 9:00 am on 25.4.03. General cleansing was performed for EF3 today.</li> <li>- E2 &amp; E4 to receive confirm SARS patients. F3 &amp; F2 were the stand-by wards.</li> <li>- ELG1&amp;2 to admit patient once clinically excluded SARS to protect suspected SARS patients from contracting the disease during hospitalization.</li> </ul>
25.4.03	<ul style="list-style-type: none"> <li>- EF block was required to decant for cleansing and replacement of sewage piping in one week's time.</li> </ul>	<p>EF3 ceased to be the admitting ward. AB5 to admit SARS cases today.</p> <p>28.4.03 (Monday) ~ open AB3 as admitting ward, decant ELG1/2 to A6</p> <p>29.4.03 (Tuesday) ~ EF2 to CD3</p> <p>30.4.03 (Wednesday) ~ EF4 to AB5</p> <p>1.4.03 (Thursday) ~ F5 to D5 &amp; E5 to C5 &amp; C6 (an admission ward for SARS patients)</p>

Date	Marked Sequence of Events	Operations/Ward Arrangements
		<p>Changes of ward area after decanting:</p> <p>10 SARS ward area to 9 SARS ward area; 2 non-SARS ward area to 1 non-SARS ward area.</p>
28.4.03	<ul style="list-style-type: none"> <li>- Preliminary plan of ward movement was confirmed after discussion with HCE.</li> <li>- A LKB patient transferred to YCH for acute care but was subsequently died from SARS. Arrangement had been made for nursing staff under SARS contact surveillance in Quarters of Tin Shui Wai.</li> </ul>	<ul style="list-style-type: none"> <li>- C6 stop admitting patients with immediate effect. Vacant rooms will receive SARS patients in near future because of its isolation facilities. During the interim period, exercise internal cohort of patients in the admission ward of AB3 with the maximum capacity of 16.</li> <li>- After decanting, F4 will not for elective intubation/mechanical ventilation.</li> <li>- For LKB: <ul style="list-style-type: none"> <li>- Transfer suspected SARS patients to admitting wards AB3 of PMH.</li> <li>- Transfer non-SARS illnesses but with SARS contact history to non-SARS wards in A6 for management.</li> <li>- Transfer infirmity patients to NGOs to space out patient beds.</li> <li>- R4S is designated as the contact SARS ward. Precaution measures had been stepped up. Staff there had been arranged to isolate for 14 days. Exhaust fans were being installed. Universal precaution would also be set up in all LKB ward areas.</li> </ul> </li> </ul>
29-30 April 03	<ul style="list-style-type: none"> <li>- Proposal on re-opening of Medical General Wards were made and amended for the consideration of top management.</li> <li>- Trail run on 29.4.03 for the new policy on drug charges introduced from 1 May 03.</li> </ul>	<ul style="list-style-type: none"> <li>- To add one MIDP session on Wednesday, on top of Tuesday &amp; Friday sessions. Medical staff take turn to attend the sessions.</li> </ul>
2.5.03	<ul style="list-style-type: none"> <li>- Staff &amp; Manpower plans were made for service re-opening. Dr C W WU will be backed for the re-opening of CCU; M&amp;G nurses to take a week's leave for the purpose of quarantine before serving the medical general wards/non-SARS wards.</li> </ul>	<ul style="list-style-type: none"> <li>- Block EF decant to Block ABCD today.</li> <li>- A revised LKB operation manual on patient admission and transfer for KWC was issued.</li> <li>- 5 BPTs will be granted the leave for washing-out from 6 May 2003 onwards before returning to their parent hospitals.</li> </ul>
5.5.03	<ul style="list-style-type: none"> <li>- SARS cases were found in 2 elderly homes and 2 residents admitted PMH.</li> <li>- In KLB, 2 confirmed, 1 suspected SARS patients and 1 staff contracted SARS.</li> </ul>	<ul style="list-style-type: none"> <li>- New SARS patients, regardless the gender admit to vacant rooms in C6 and when full, admit to AB3.</li> <li>- Ward opening after cleansing EF Block (12.5.03). Initial planning discussed.</li> </ul>

<b>Date</b>	<b>Marked Sequence of Events</b>	<b>Operations/Ward Arrangements</b>
6.5.03	Declining number of SARS patients and lack of manpower for the opening of general medical wards scheduled in the week of 12.5.03.	<ul style="list-style-type: none"> <li>- D3 to be decanted to D5 on 8.5.03.</li> <li>- w.e.f. 6.5.03, confirmed SARS patients from admitting ward (CD3) would be triaged to other SARS supporting wards apart from CD3 &amp; C6. C3 will be next ward to close.</li> </ul>
7.5.03	<ul style="list-style-type: none"> <li>- With immediate effect, admit OLMH suspected SARS patients to AB3/C6 admission ward.</li> <li>- Pregnant SARS patients due for labour who had recent SARS but discharged after recovery would be admitted to non-SARS ward for obstetric care until the full team of O&amp;G return PMH. A group of nurse in CD6 can be called for emergency consultation.</li> </ul>	<ul style="list-style-type: none"> <li>- Detailed arrangements for inter-departmental consultation spelt out.</li> <li>- Internal departmental consultation discussed.</li> <li>- E4 was suggested to be the ID ICU ward.</li> <li>- Needs to identify ID ward for non-SARS ID patients was noted</li> </ul>
9.5.03		<ul style="list-style-type: none"> <li>- Floor plans of wards with the specification of areas per patient and bed distance discussed and would forward for the consideration of top management.</li> <li>- At least 4 wards in ABCD block are required for resumption of full general medical service to satisfy 3 feet between-patients requirement as stipulated by HAHO.</li> </ul>
12.5.03	<ul style="list-style-type: none"> <li>- Admission of E-old cases from AEDs of YCH and CMC starting from 12.5.03.</li> <li>- Open 4 general wards. Bed stat in these 4 wards of EF1, 2 and ELG1 &amp; 2 revised.</li> <li>- One M&amp;G MO will be backed from ICU.</li> </ul>	<ul style="list-style-type: none"> <li>- Decant A6 to Block EF after the ward round on 12.5.03. C3 may decant to C5.</li> <li>- Special arrangement for inter-departmental consultation and internal departmental consultation had been put into effect.</li> <li>- Resume 4 on-call MOs</li> <li>- Re-open Cardiac investigation laboratory, CCL, lung function laboratory to support urgent in-patient care.</li> <li>- Comply with advice on Interim measures of Infection Control for SARS Ward to change to General Medical Wards.</li> </ul>
14.5.03	<ul style="list-style-type: none"> <li>- Concern was raised to hospital regarding sharing of sewage piping in EF block. This may lead to contamination of non-SARS areas if the reflux in the user end.</li> </ul>	<ul style="list-style-type: none"> <li>- Suspected SARS patients (Cat. I cases from PMH AED/DH referral centers/YCH/CMC referral/LKB transfer back case for suspected SARS illness/STS transfer back) to C6 and if all rooms in C6 is occupied, patient will be admitted to AB3.</li> <li>- Confirmed SARS patients (Cat 2&amp;3 cases from admission ward/transfer out from ICU) to CD5. Stop admission to AB5 with the intention to close the wards by next week.</li> </ul>

Date	Marked Sequence of Events	Operations/Ward Arrangements
		<ul style="list-style-type: none"> <li>- EF3 plans to be opened by next week</li> <li>- The existing SARS wards in ABCD5 to be decanted to CD5.</li> <li>- Blood taking for discharge SARS patients should be in K7.</li> <li>- MIDP : Wednesday Clinic last until the end of May. To close Tuesday clinic in AED by end of June.</li> <li>- No special leave for senior medical staff.</li> <li>- Study updates and latest clinical treatment measure to be released to staff in staff forum.</li> <li>- Dr LO WL joined the medical staff forum</li> </ul>
15.5.03	HA members visited PMH	<ul style="list-style-type: none"> <li>- Close C3</li> </ul>
16.5.03	<ul style="list-style-type: none"> <li>- Quotas to be set to admit emergency non-PMH Medical old cases from AED, YCH &amp; CMC.</li> <li>- A separate sewing piping system is planned for EF4/6. The committee advised the system should include EF5.</li> <li>- Dr S T LAI to work out the conversion plan for ID ward in F4.</li> </ul>	<ul style="list-style-type: none"> <li>- In LKB, 1 nurse, 1 HCA and 2 patients confirmed to have contracted with SARS. The R4S ward closed till 27.5.03.</li> <li>- All geriatric patients discharge to institutes, e.g. old age home: to consult Geriatrics before discharge. Geriatrics is responsible to activate a surveillance system and ascertain precautionary measures.</li> <li>- EF3 is planned to be opened on 26.5.03 and should be ready by 22.5.03.</li> <li>- C2 will be the clean ICU.</li> <li>- A work group to prepare a proposal on admission of SARS patients to PMH in future.</li> <li>- 3 MOs will be returned from YCH.</li> <li>- Restart the orientation program and assign mentors for Interns.</li> </ul>
20.5.03	<ul style="list-style-type: none"> <li>- Additional quotas of 5 male and 5 female patients will given to YCH and 5 female patients to CMC, subjected to daily review.</li> </ul>	<ul style="list-style-type: none"> <li>- Dr W C YU to screen all suspected SARS cases of NTW and NTE.</li> <li>- If patients in LKB require acute care, they will be returned to parent hospitals for non-SARS illness but will be admitted to Cat.1 ward of PMH for suspected SARS illness.</li> <li>- ICU agreed to provide support for difficult intubation.</li> <li>- Future plan in July after AED re-open discussed.</li> <li>- Nursing staffs were suggested to take turn to be the petrol during their rest time in each shift.</li> </ul>



Date	Marked Sequence of Events	Operations/Ward Arrangements
21.5.03		B5 decant to C5.
26.5.03		<ul style="list-style-type: none"> <li>- Decant A5 to D5</li> <li>- After decanting, C6/AB3 will be the admitting ward for cat.1 patients and CD5 will be the only supporting Cat. 2 &amp; Cat 3 ward.</li> </ul>
27.5.03	<ul style="list-style-type: none"> <li>- PMH continued to receive Cat I cases from YCH and CMC.</li> <li>- HAHO issued a new resuscitation guideline. The dept. agreed that Bougie should be made available in SARS ward resuscitation trolley for difficult intubation to avoid bagging if intubation is not successful.</li> </ul>	<ul style="list-style-type: none"> <li>- Arrangements had been made for NS consultation prior to the return of Neurosurgical team.</li> <li>- Unit heads will designated a staff for KCH consultation</li> <li>- Admission policies of the critically ill patients form LKB were revised.</li> <li>- In view of tight manpower and low occupancy rate, the no. of on-call MO was reduced from 4 to 3 for a month to minimize the frequency of on call duty. Senior MOs were responsible to treat the SARS patients.</li> <li>- As protection gear in general ward is required as that of the SARS ward, no internal overflow was proposed to enhance better patient care, reduce staff inconvenience and staff anxiety.</li> </ul>
30.5.03	<ul style="list-style-type: none"> <li>- There are several outbreaks in NDH, quotas of 5 patients for admitting M&amp;G referrals from NDH will be rendered and reviewed daily.</li> <li>- Starting admission today according to the prior arrangements. No internal overflow is noted.</li> </ul> <p data-bbox="226 1050 481 1082"><i>Starting from mid-June</i></p> <ul style="list-style-type: none"> <li>- PMH to admit newly confirmed Cat 2 &amp; 3 cases from the KW cluster hospitals including KWH, YCH, CMC and OLMH. Consultation will be made with the on-call MO before the transfer arrangement</li> <li>- C6 &amp; C4 to receive fever cases for screening.</li> <li>- More provision with isolation facilities should be planned for July. C6, C4 &amp; B4 are the suitable venues.</li> <li>- One MO will be back to M&amp;G by June 03.</li> </ul>	<ul style="list-style-type: none"> <li>- The dept SARS Committee decided that OPD service for new appointment will be fully activated upon the re-opening of AED in July and full functioning of supporting service. Appointment booking was not accepted except for a few of urgent or special cases.</li> <li>- To cope with the increase of General Medicine cases, the planned arrangements are as follows: <ul style="list-style-type: none"> <li>a) To open E3 for admission today and F3 on 2.6.03. Admission flow changed.</li> <li>b) w.e.f. the week of 9.6.03, ELG2 will be the mixed Respiratory ward. ELG1 will be the male ward to receive clinical and internal transfer cases, mainly cardiac patients.</li> <li>c) When the bed occupancy reaches 28 in all wards of E1 to E3, the no of bed will be increased to 36.</li> </ul> </li> <li>- Tents to be installed in ELG2 and 2 cubicles in ID ward.</li> </ul>

<b><i>Date</i></b>	<b><i>Marked Sequence of Events</i></b>	<b><i>Operations/Ward Arrangements</i></b>
	- Remove exhaust fans in wards until the SARS dies down around July.	