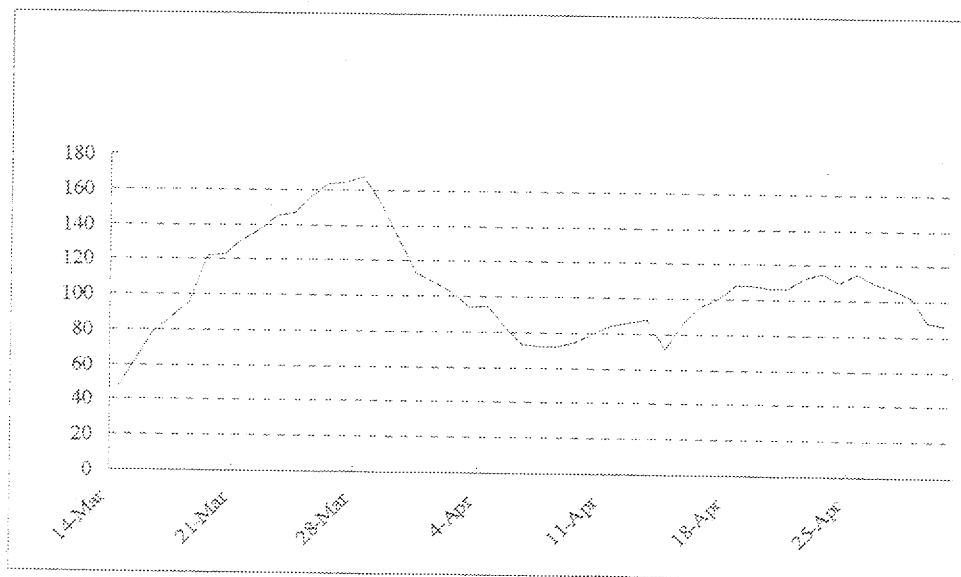


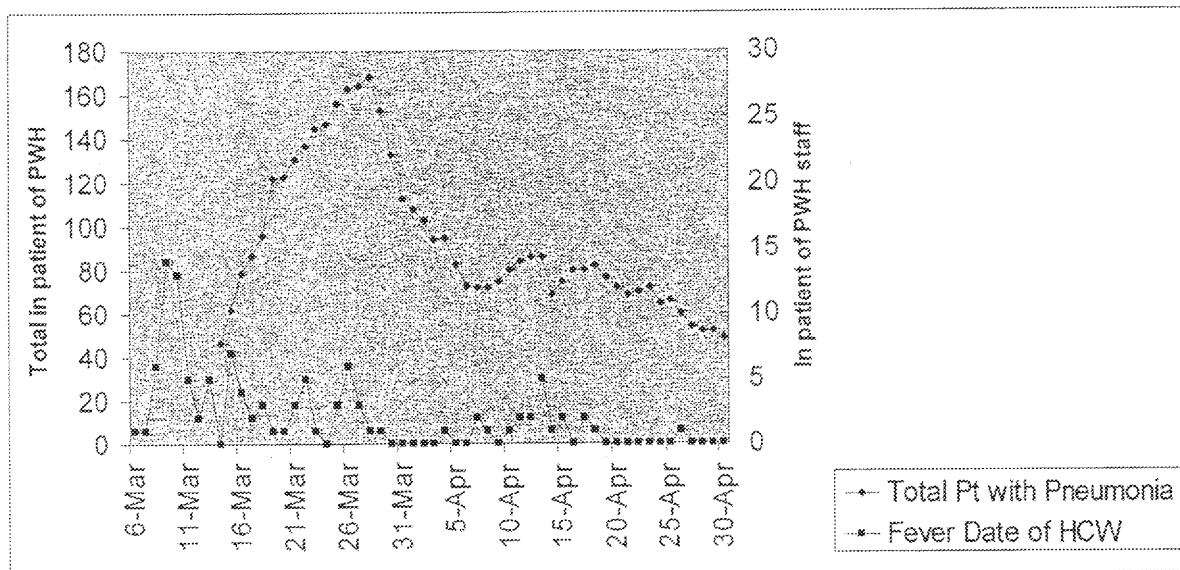
Management of SARS in NTEC

Dr H Fung
June 2003

Daily Statistics of Confirmed SARS Patients in NTEC



Patients with SARS in PWH

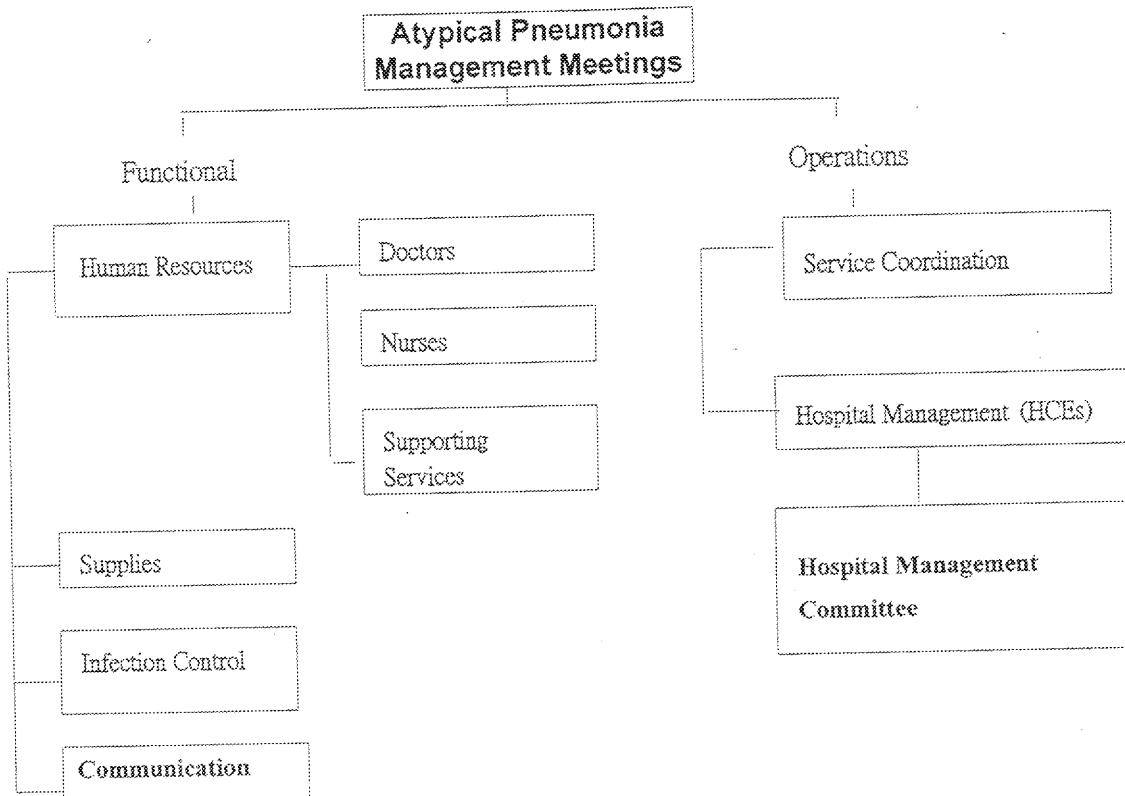


Early Phase (10 Mar – 22 Mar)

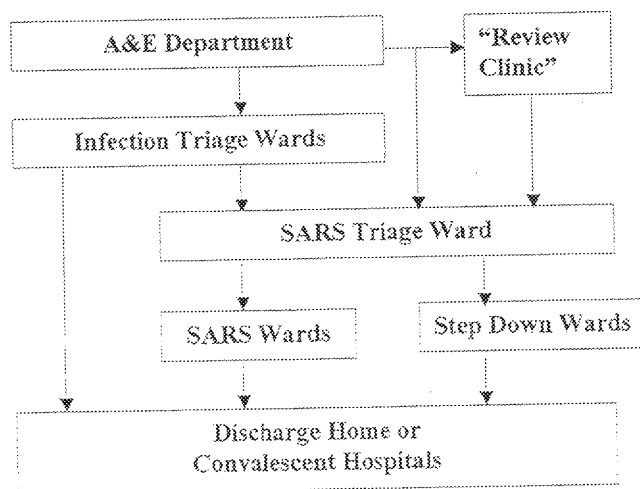
10/3 - 11 staff from ward 8A on sick leave
 11/3 - 14 staff from ward 8A + 3 cardiac surgeons on sick leave

- ✓ 8A closed to admissions (10/3)
- ✓ Urgent clinic screened 50 staff and admitted 23 (11/3)
- ✓ A&E screening clinics (12/3)
- ✓ Atypical pneumonia management meetings
- ✓ Disease Control Centre
- ✓ Clean and dirty clinical teams
- ✓ Atypical pneumonia cohorting wards
- ✓ Infection control measures
- ✓ Contingency service re-arrangements within NTEC
- ✓ Staff communication and support mechanisms
- ✓ Restricted visiting

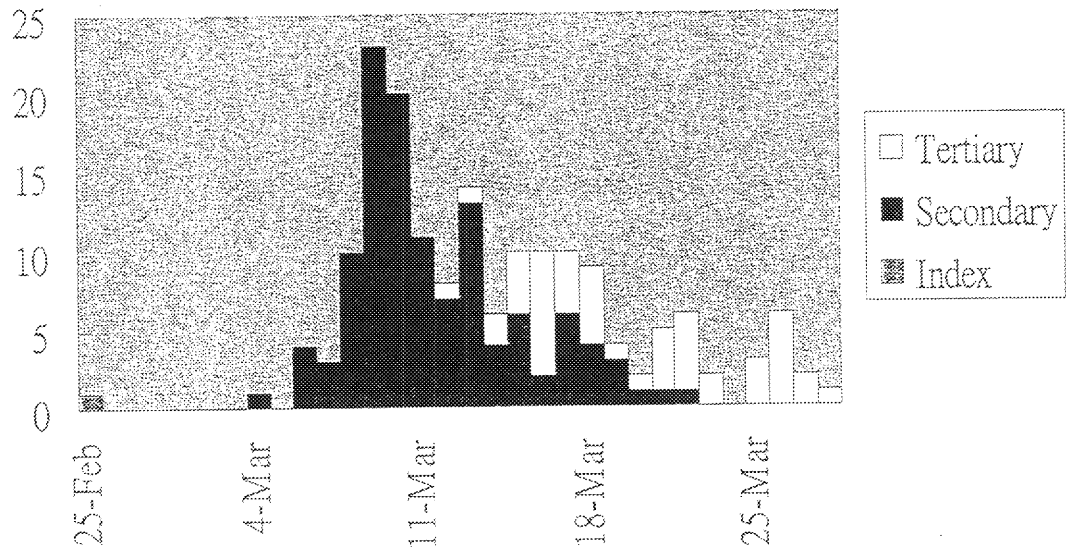
Organization of Cluster SARS Management Team



SARS Patients Segregation Policy



Epidemiological Curve of PWH Ward 8A SARS Outbreak



Early Phase (10 Mar – 22 Mar)

14/3 Index case identified
 15/3 1st doctor intubated
 16/3 Discussion with CE on service contingencies
 17/3 Professor PC Leung advocated closure of A&E in staff forum
 Increased ICU admissions
 18/3 Discussion with CE on service contingencies
 Nebulizer identified to be cause of major outbreak
 20/3 2 local general practitioners admitted
 Discussion with CE on probable community spread

- ✓ Diversion of medical emergencies to other clusters (17/3)
- ✓ Suspension of A&E services (19/3)
- ✓ Opening of windows in SARS wards

Resolution Phase (20 Apr – 4 May)

21/4 Opening of SARS ward in TPH
28/4 O&E NTE resumed duty
30/4 Opening of fever isolation ward in TPH
1/5 O&E resumed duty

- ✓ Suspension of AHN A&E service (24/4)
- ✓ Strengthened support to old age homes (28/4)

Normalizing Phase (5 May – Present)

6/5 Visit of Dr. Seto Wing Hong to FWH
8/5 FWH nurses stopped using Barrier Man
10/5 Visit of HA Board Task Force to FWH
15/5 TPH SARS ward closed
17/5 Visit of HA Board Task Force to AHN and TPH

- ✓ Critical evaluation of cluster wide infection control measures
- ✓ Revised guidelines on infection control measures and PPEs (15/5)
- ✓ Additional staff provision for fever wards (19/5)
- ✓ AHN private wards opened for SARS triage (20/5)
- ✓ Hospital-wide infection control audit
- ✓ AHN admitting all confirmed SARS patients in NTEC

Peak Phase (23 Mar – 5 Apr)

23/3 CE admitted CMH
24/3 HA SARS Coordination Centre set up
26/3 Visit of CDC expert on infection control to PWH
27/3 CCE(NTE) admitted PWH
29/3 1st group of 9 staff discharged
31/3 DH announced 3 wards affected by SARS in AHN
3/4 14 convalescent patients transferred from AHN to PWH

- ✓ 1st review of infection control measures
- ✓ NTEC SARS Prevention Task Force (27/3)
- ✓ Risk based infection control guidelines and PPE standards (31/3)
- ✓ PWH A&E re-opened for walk-in patients (30/3)
- ✓ No visitor policy (2/4)

Plateau Phase (6 Apr – 19 Apr)

7/4 AHN opened E1 as SARS Triage ward
9/4 Medical staff support to PWH
14/4 AHN opened F1 as SARS ward
CE discharged
16/4 CCE(NTE) discharged

- ✓ PWH A&E resumed full operations (6/4)
- ✓ Ventilation improvement works to SARS wards
- ✓ Diversion of AHN non-SAR medical emergencies (16/4)
- ✓ Trial use of Barrier Man

Normalizing Phase

(5 May – Present)

25/5 Mini-outbreak reported in NDH
31/5 Mdm Wong Kang Tai passed away
1/6 Dr Cheng Ha Yan passed away
16/6 All wards in NDH completed surveillance

- ✓ Closure of Wards 2B, 4A, 4B & 4C in NDH (23/5-16/6)
- ✓ Contact tracing and quarantine of NDH staff, patients and contacts

Key Issues

- “Closure” of PWH
- Community spread of SARS
- Infection control in hospitals
- Cluster policies on patient referral

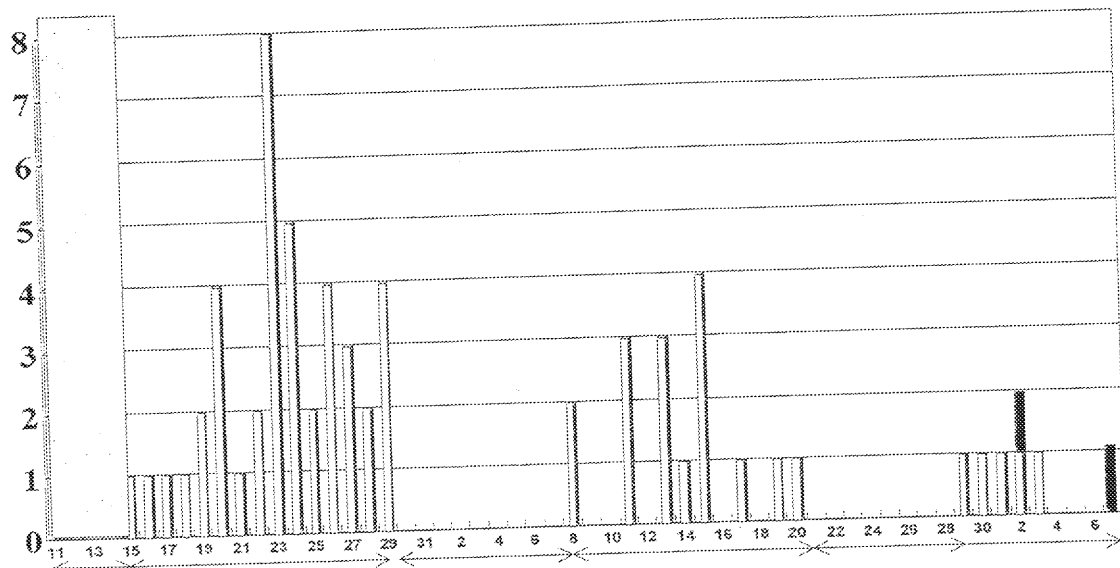
Closure of PWH

- Closure of A&E Department
- Closure to visitors
- Closure of all non-SARS related clinical services
- Closure of the whole hospital to quarantine all staff and patients

Factors Leading to AHN Outbreak

- Overwhelming workload
- Overcrowded wards
- Ventilation system design
- Insufficient isolation facilities
- High background SARS in community
- Cryptic presentation
- Lack of experience in infection control measures
- Insufficient staff preparation
- High touch culture
- Inadequate quarantine of exposed patients

Confirmed Case of SARS of HCWs at PWH



Nebuliser (6-14/3)

Extra IC measures (27/3)

Barrier-Man, Extraction Fan (17/4)

Close A&E (19/3)

open A&E (30/3)

Readmit Patient (6/4)

NTEC SARS PREVENTION TEAM

Main task:

to prevent secondary infection of SARS amongst health care workers and patients

主要宗旨：

防止醫護人員及病人受到嚴重急性呼吸道綜合症(第二層感染)

Mutual care, support and monitoring

互相關懷，互相支持，互相監察

Protect yourself, your colleagues and your family
Strictly follow all recommended infection control measures
all the time.

Don't give yourself a life threatening present (SARS).

保護你自己，你的同事及家人
請嚴格執行所有防止感染措施

切勿贈予自己一份可嚴重危害健康的禮物 (嚴重急性呼吸道綜合症)

NTEC SARS PREVENTION TEAM
IC officer IC unit staff RM staff SARS Data manager



HOSPITAL SARS PREVENTION TEAM
IC officer IC unit staff RM staff SARS Data manager



DEPARTMENT SARS PREVENTION TEAM
IC officer



WARD / UNIT / OFFICE SARS PREVENTION TEAM
IC officer