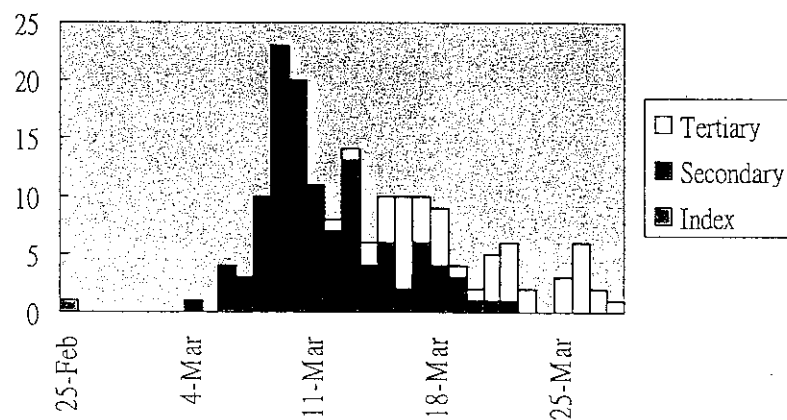


SARS Outbreak in PWH Ward 8A

July 2003

Epidemiological Curve of PWH Ward 8A SARS Outbreak



Early Phase (10 Mar – 22 Mar)

10/3 1st 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

Early Phase (10 Mar – 22 Mar)

14/3 1st by case identified
15/3 1st doctor diagnosed
16/3 Discussion with CE on service contingencies
17/3 Professor PCT being advanced decline of A&E in soft
lemon
Increased ICU admissions
18/3 Discussion with CE on service contingencies
Nurse identified as the 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

Layout of Ward 8A

					Toilet				
Bed 13	Bed 14	Bed 15	Bed 16	Bed 16X	Bed 17X	Bed 17	Bed 18	Bed 19	Bed 20
3/3	1/2	3/4	1/1		1/2	2/2	0/1	1/1	1/2
Bed 12	Bed 11	Bed 10	Bed 9		Bed 24X	Bed 24	Bed 23	Bed 22	Bed 21
0/1	Index	2/4			1/1	2/3	1/1	1/1	1/3
		Nursing Station							
Bed 34	Bed 33						Storage		
	0/2								
Bed 5	Bed 6	Bed 7	Bed 8		Bed 25X	Bed 25	Bed 26	Bed 27	Bed 28
0/1		1/1	0/1		0/1	0/1	0/3		2/3
Bed 4	Bed 3	Bed 2	Bed 1	Bed 1X	Bed 32X	Bed 32	Bed 31	Bed 30	Bed 29
0/2	0/1	0/2	0/1	1/1			1/3	0/1	1/1

Managing the Crisis

- Management
- Public health
- Operations
- Clinical management
- Communication

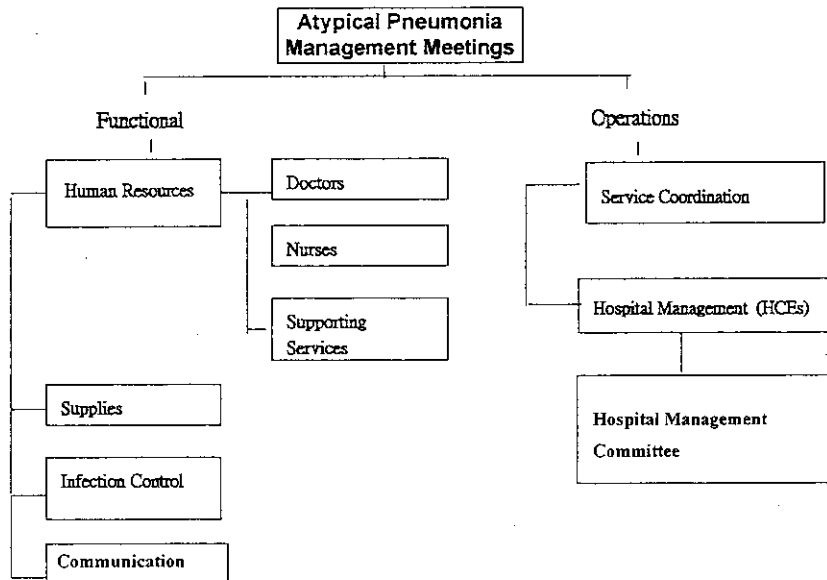
Our Aims

- Control the disease
- Control the infection
- Get them well!

Management Responses

- Hospital governance
- Communication with HA Head Office
- Cluster decision making
- Communication with frontline clinicians

Organization of Cluster SARS Management Team



Public Health Responses

- Liaison with DH
- Case definition
- Source detection
- Contact tracing
- Patient cohorting
- Infection control

Disease Control Centre

- 12/3 Set up in Conference Room 2
- 13/3 DH team invited to station in
- 19/3 DH re-introduced team to beef up contact tracing
- 22/3 Merged database with DH

Data captured:

Name, ID no., HCW/ patient/ medical student, rank, working department/ ward, tel no., stay in which ward, CXR findings, source of contact, admission date & time, some investigation results (lymphocyte count, LDH, etc.)

Case Definition

Before 17/3

Fever + chills or rigor

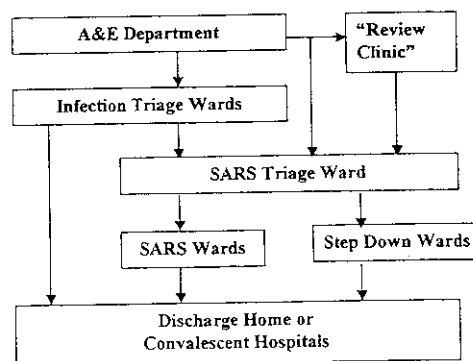
After 17/3

1. Presence of new radiological infiltrates compatible with pneumonia
2. Fever $\geq 38^{\circ}$ C
3. Presence of at least 2 of the followings:
chills in the last 2 days, new or increased cough, shortness of breath, pleuritic chest pain, typical signs of consolidation

Contact Tracing

- List of patients ever admitted to 8A from 15 Feb onwards passed to DH
- Questionnaires from A&E screening clinic provided to DH on daily basis
- Soft copy of PWH database provided to DH on daily basis
- PWH team responsible for contact tracing of inpatients, staff and medical students; asymptomatic contacts referred to DH for disease surveillance

SARS Patients Segregation Policy



Infection Control

- Interim guidelines on upgraded droplet precautions (12/3 – 15/3)
- Comprehensive infection control guidelines for NTEC (29/3)

The Interim Guidelines cover

Droplet precautions, contact precautions, use of masks, N95, gloves, gowns, hand washing, linen and clinical wastes, urinal and bed pans, patient care equipment, environmental cleansing, visitor, management of patients with symptoms

Operational Responses

- Closure of A&E services
- Stopping of elective services
- Limiting clinic services
- Mobilization of manpower
- Coordination of medical expertise

Communication

- HAHO Round-up meetings and CE visits
- 24 hour hotline (12/3)
- Daily situation report to staff and HGC members (14/3)
- NTEC Intranet on atypical pneumonia (14/3)
- Daily staff forum (17/3)

Clinical Management

- What are we treating?
- Collection of clinical data
- Close monitor of case progress
- Summarizing the clinical features
- Exploring treatment methods
- Evaluation of clinical outcomes

Lee et al, www.nejm.org on 7 April 2003

Lessons Learnt

- Get organized
- See it yourself
- Prepare for the worst
- Involve the stakeholders
- Rely on the team
- Stick to the first principles
- Manage the emotions
- Communicate well
- Be transparent all the time