專責委員會(2)文件編號 : H142

SC2 Paper No. : H142

醫院管理局
HOSPITAL AUTHORITY

群策群力為病人・優質醫護滿香林
Quality Patient-Centred Care Through Teamwork

BY FAX ONLY 22482011

SARS LegCo Select Committee

The following documents are submitted pursuant to the Select Committee's request at Dr. W M Ko's hearing on 10 February 2004 and 14 February 2004 respectively:

Items	Information required by LegCo
1.	Dr C H Leong's attendance record for the SARS Roundup Meetings.
Answer:	According to Dr C H Leong, he attended all SARS Roundup Meetings.

2. Implementation of "Quarantine Policy" in HA Hospitals.

Answer: *Detention of patients*

- From 28 March 2003, Hospital Authority (HA) hospitals could seek support from police if patients suspected or confirmed to have SARS refused detention in hospital despite other efforts.
- From 31 March 2003, Department of Health (DH) informed HA that HA staff could contact Medical Control Officers (MCO) of DH in respect of suspected or confirmed SARS patients who refused admission.
- On 3 April 2003, DH informed HA that legal form under section 10 of Prevention of the Spread of Infectious Diseases Regulation was available.

3. Report from the World Health Organization on Infection Control Measures in Prince of Wales Hospital.

Answer: See Appendix I.

4. Procedures as laid down in the Human Resources Policy Manual for deputizing appointment.

Answer: The authority to approve deputising appointments for the Chief Executive was delegated by the HA Board to its Chairman on 29 July 1997 (see Appendix II).

Hospital Authority
28 April 2004

Appendix I

Report of Infection Control Consultation
Prince of Wales Hospital, Hong Kong
26/3/03

Reported by: [redacted], RN, MS
Division of Healthcare Quality Promotion
Centers for Disease Control and Prevention

[redacted] MD, PhD
National Institute of Infectious Diseases
Field Epidemiology Training Program

Purpose: The purpose of this consultation was to observe and discuss infection control practices to prevent nosocomial transmission of Atypical Pneumonia (AP) at Prince of Wales Hospital.

Background: Following the 4/3/03 admission of a patient subsequently diagnosed with AP, an outbreak of AP among hospital staff and patients was detected. To date, 163 cases, of which 93 are in hospital staff, have been recognized. Among healthcare workers, the majority (72) followed direct or indirect contact with the index case; 21 are secondary transmissions, presumably from patients or other healthcare personnel. The hospital has accumulated considerable epidemiological data that have been used to describe the evolving outbreak, assess risk factors for transmission, and detect ongoing transmission.

Infection control measures were implemented incrementally, starting on 10/3/03. These have largely focused on "upgraded" Droplet Precautions. Despite these measures, ongoing transmission has been detected. The hospital is concerned about these apparent failures of infection control and has requested consultation on areas where improvements could be made.

The factors that facilitate transmission of the agent associated with AP are unknown. These include the onset and duration of infectivity, survival of the organism in the environment, and role of fomites in transmission. Until the etiology and epidemiology of this agent is established, it must be assumed that patients are infectious throughout the course of their disease and the virus is able to survive indefinitely in the environment. Prevention must minimally focus on limiting the number of contacts with AP patients through restricted access to units where they are housed, preventing direct and indirect contact with respiratory droplets and other body fluids through use of personal protective attire, practices to prevent touch contamination, containing the area of contamination, removing contamination through cleaning and disinfection of environmental

surfaces that could be implicated in transmission and ventilation to increase the number of hourly air exhanges.

Observation of Nursing Units:

Two floors housing patients with AP were visited, 8A and B, and the ICU. Currently, only patients with AP are housed on these two units. Bed capacity is ___ for the 8th floor and ___ for the ICU; only a few beds were unoccupied. Entrance to both units is restricted and there is an abundance of signs describing the precautions to be taken. Personnel who monitor persons entering the units are present at the entrance to each area. Hand hygiene and use of gowns, N95 respirators, head covers, and gloves is required for entry to the isolation area; goggles or face shields is required during procedures that may generate aerosols, e.g., suctioning, intubation. The use of nebulizers has been discontinued since epidemiological data has suggested a possible role in transmission.

Both the ICU and 8th floor units are very crowded. Patient beds appear to be less than 1 meter apart and personal items of patients clutter the environment. In addition, there is an abundance of materials required for patient care in the immediate area. The relevance of this to transmission risks cannot be determined at this time. However, the environment is conducive to contamination of fomites, which might be important for transmission of the agent associated with AP. This level of clutter also presents barriers to cleaning.

Trash and linen are handled as "red bag" waste. Where observed, contaminated materials were appropriately contained.

The frequency of environmental cleaning, consisting of washing floors, sinks, and other horizontal surfaces with a disinfectant (I believe a 1000ppm dilution of bleach and water is being used) has been increased to three times daily. As noted above, there is limited opportunity for cleaning some areas due to the clutter in the unit.

Items that are subject to frequent touch contamination, e.g., phones, computer screens and keyboards, have been covered with plastic wrap.

The air conditioning is operational in the ICU but has been turned off on the 8th floor. Windows have been opened to promote cross ventilation. A noticeable air current was observed in the hallway to the 8th floor unit. However, the direction and pressure gradient (positive or negative) relative to the area outside the "contaminated" area was not determined. The relevance of ventilation to transmission of the agent associated with AP has not been determined. Currently, the epidemiology of AP suggests

that transmission is predominantly through close patient contact and respiratory droplets. Thus the importance of the central ventilation system to transmission might not be relevant. Efficient air exchange in the environment where the care of AP patients is provided is important to reduce the bioburden and possible transmission risks in the environment.

Personnel on both units were observed to be in compliance with the use of the recommended attire. Staff working close to the patients in the ICU wore goggles or face shields. No serious breaches in infection control were observed during the visit. Minor breaches were noted. Specifically, one unprotected nurse entered a "clean" locker area in 8A, and staff handling of personal pagers and other equipment carried in pockets with "contaminated" gloves. There also is a natural tendency for staff to touch glasses and masks with gloved hands. To what extent these breaches might contribute to transmission is unknown.

Impressions: Based on the high incidence of AP in hospital personnel, it must be assumed that patients with AP are highly infectious and that the environment of care is heavily contaminated. Efforts to prevent transmission on units housing patients with AP must focus on the use of personal protective attire for healthcare personnel, behaviors to prevent cross-contamination, and reducing environmental bioburden.

The observation of the areas caring for patients with AP was limited in time and scope. Based on what was observed, personnel were wearing the appropriate protective attire to prevent transmission. However, we had the impression that full compliance with these measures is only recent.

We are concerned that clutter in the units may impede cleaning efforts and foster transmission via fomites. However, there is no current evidence to suggest fomites have been associated with the agent that causes AP. The hospital asked for our opinion on the advisability of moving patients to a "clean" unit and terminally cleaning the 8th floor. Based on the evidence presented to date, no recommendation can be made for such a move. However, if there is evidence suggesting that environmental transmission may be a factor in ongoing transmission, then closing the unit and performing terminal cleaning and disinfection may be appropriate.

Recommendations:

Hospital officials have implemented extensive controls to prevent transmission of the agent associated with AP. No new control measures can be recommended at this time. The following recommendations reflect primarily process measures to enhance the effectiveness of current controls.

- **Interview staff who have recently developed AP** to ascertain factors that may have contributed to transmission, including participation in infection control training on AP, understanding and use of the required barriers in the isolation area, extent and nature of (i.e., procedures performed) their involvement with AP patients, and exposure to possible cases outside the isolation area. Ascertainment of factors contributing to transmission is critical to assessing the effectiveness of control measures. Without this information it is impossible to know whether the recent transmissions reflect inadequate infection control measures, poor adherence to infection control measures, or other opportunities for exposure.
- **Reinforce training to prevent transmission.** Healthcare personnel must view the entire environment of care as contaminated. There appears to be considerable focus on procedures for donning and removing protective attire and less attention on the behaviors that could contribute to personal exposure and contamination of potential fomites. Personnel working in the environment are often most astute about such opportunities. Meetings with these staff to discuss how to further reduce personal and cross-contact may be useful. In addition, as new staff are assigned, consider assigning another staff member to serve as a mentor for prevention.
- **Minimize assignment of new staff to the unit.** When essential for relieving existing staff, require intensive training on infection control before reporting for duty.
- **Minimize contact between "exposed" and "unexposed" staff.** It is impossible to know whether staff who have been working in the AP isolation area have had exposures and might be in the early stages of a communicable infection. Therefore reducing unprotected contact between these two groups during and after work hours could be important.
- **Minimize visitors.** The separation of patients from family during an illness can be extremely stressful. Nevertheless, during an outbreak like AP, patient visitation must be restricted to the extent that it is not detrimental to patient care. This appears to be in place. Family visitation should be supervised and family members should be instructed on use of protective attire, if this is not currently done.
- **Implement efforts to reduce environmental clutter and contamination.** Encourage patients to keep personal items in the bedside stand when not in use to facilitate cleaning by environmental personnel. Eliminate non-essential materials and equipment from the isolation area. Consider transferring recovering patients to a "step-down" unit to reduce patient density in the isolation area. Clean and decontaminate all materials transferred with the patient.

- **No recommendation for air handling** can be made without additional research on this subject. [redacted] will discuss this with experts in environmental infection control)

Additional thoughts:

The need for masks when in common areas of the hospital is an area of confusion and uncertainty for all involved. Based on what is currently known about the epidemiology of AP disease, it is unlikely that masks are needed in common areas of the hospital. However, it seems prudent for personnel having unprotected contact with AP patients, and who might be incubating the disease, to wear a good fitting surgical mask during meetings involving face-to-face contact.

The consultants thank the hospital officials for their cooperation and opportunity for open discussion during this visit.

(Appendix II)

HA-M61

DRAFT

醫院管理局
HOSPITAL AUTHORITY

Minutes of the Sixty-first Meeting
of the Hospital Authority
held on Tuesday 29 July 1997 at 2:30 pm
In the Head Office Conference Room, 24/F World Trade Centre

Present :

Mr Peter K C WOO, JP (Chairman)

Miss Eliza C H CHAN

Mr John CHAN Cho-chak, JP

Dr Margaret CHAN, JP
Director of Health

Mrs Pamela CHAN, JP

Miss Iris CHAN Sui-ching

Dr CHOW Chun-bong

Mr Joseph M K CHOW, JP

Prof CHOW Shew-ping, JP

Miss Gracie FOO
(representing Secretary for the Treasury)

Dr Conrad LAM Kui-shing, JP

Dr the Hon C H LEONG, JP

Mr Gregory LEUNG, JP
Deputy Secretary for Health and Welfare

Prof Felice LIEH MAK, JP

Deputising appointment for Chief Executive (HA Paper No. 599)

Having noted the different administrative arrangements between an acting appointment and a deputising appointment, the Authority Board approved the proposal for Dr Dickson Chang, Deputy Director (Operations & Service Development), to deputise as the Chief Executive during Dr E K Yeoh's absence from duty from 3 August to 10 August 1997 (both dates inclusive).

The Board also agreed that the authority of approving deputising appointments for the Chief Executive should be delegated to the Chairman in future.

(26 July 1994)

Chapter A3 AUTHORITIES **PAGE : 1 OF 1**

A3.1 Authority for Setting Policies

A3.1.1 The sole authority for setting the human resources policies covered in this Manual is the HA.

A3.1.2 The Standing Committee has delegated authority to approve revisions or supplements to the policies covered in this Manual.

A3.2 Authorities for Implementing Policies

A3.2.1 In general, authority for implementing these human resources policies is delegated by the HA to the following persons :

(a) at the HAHO level, the Chief Executive (CE);

(b) at the hospital level, the Hospital Chief Executive (HCE).

A3.2.2 The CE and the HCE may nominate persons in the HAHO and in the hospital respectively to help them carry out the human resources functions. Such nominations should be documented and promulgated for general information.

A3.3 Authority for Approving Exceptions to Policies

A3.3.1 The CE or his nominated representative is the delegated authority for approving exceptions to policies. All these cases will be properly documented.

A3.3.2 The HCE may also approve exceptions to policies in consultation with the CE. All these cases will be properly documented.