

**Centre for Health Protection  
Scientific Committee on Infection Control**

**Recommendations on Hospital Infection Control System in Hong Kong**

**Purpose**

The paper outlines the recommendations of the Scientific Committee on Infection Control (SCIC) regarding the hospital infection control system comprising its infrastructure and essential activities for both private and public hospitals in Hong Kong.

**Rationale**

2. Hospital infection control and prevention programmes have shown to be clinically relevant as well as cost effective to prevent and control nosocomial infections.<sup>1,2</sup> A good infection control infrastructure therefore is critical to the success of implementing these programmes to achieve protecting health of the patients, healthcare workers and those in the health care environment.

3. An infection control capacity survey was carried out by the Infection Control Branch (ICB) between July to August 2004 to assess the present resources and activities of infection control teams in public hospitals in Hong Kong, as well as to identify any training needs.<sup>3</sup> The details on identified areas for improvement is presented in a report by ICB and is available upon request.

4. The recommendations below is based upon the survey by ICB and the consensus report by Society for Healthcare Epidemiology of America (SHEA), the latter of which identified the requirements for infrastructure and essential activities of infection control and epidemiology in hospitals via comprehensive literature review.<sup>4</sup>

**Recommendations**

5. The recommendations of SCIC on infection control system in both public and private hospitals are therefore based on the local findings<sup>3,5</sup> as well as evidence –based international experience.<sup>4,6</sup>

## **Section A Recommendations on hospital infection control infrastructure**

### *6. On Infection Control Resources*

- a. It is critically important that there are sufficient infection control nurses provided in all hospitals. It has been shown that a ratio of 1 full time ICN per 250 hospital beds is necessary for full efficacy based on overseas studies e.g. the SENIC study of the USA.<sup>1,7,8</sup> Recent studies showed that a higher ratio may be indicated in specific acute settings.<sup>9,10</sup>
- b. The infection control committee should ensure active representations from the key departments of the hospital to oversee the work of the infection control. The committee must meet regularly to review the infection control programme of the hospital.
- c. The provisions of adequate laboratory, statistical, secretarial, computer and reference literature support are critically important for the proper functioning of the infection control team. There should be ample collaboration with specialists in epidemiology, engineering, occupational safety and health. There must also be provision of adequate office space.
- d. It is important that the infection control team have access to adequate continuing education to update themselves on this rapidly expanding field. The hospitals should in particular consider assigning resources in training infection control doctors.
- e. The hospitals should delineate the roles and responsibilities of their ICO and ICN which would be conducive to their respective hospital environment.

### *7. On Infection Control Policies*

- f. Every hospital should establish a set of infection control guidelines which are scientifically valid and yet relevant to the needs of the hospital leading to improvement in preventive measures and patient outcome. The majority of these guidelines should be related to the prevention of endemic nosocomial infections. These guidelines should be endorsed by the infection control committee of the hospital.

- g. These guidelines should be updated on a regular basis to include new scientific findings and also taking into account local practicality and cost. The updated guidelines should be freely available in the relevant clinical areas.
- h. The compliance to these guidelines should be monitored with feedback given to the relevant clinical areas.
- i. The implementation of policies that are formally endorsed is the responsibility of the infection control team of the hospital.

8. *On Capacity Building for Infection Control Staff*

- j. All Infection Control Nurses (ICN) should be appropriately trained. An example of appropriate training would be the requirement of ICN to have at least two years experience in the field of infection control prior to being eligible to sit for the certification examination, as stated by the Association for Professionals in Infection Control and Epidemiology (APIC) of USA.<sup>11</sup>
- k. It is also critically important there are appropriately trained infection control doctors.<sup>1</sup> An example in Hong Kong would be the Clinical Microbiology and Infection Fellowship with the Hong Kong College of Pathologists.

**Section B: Recommendations on infection control essential activities**

9. *On Surveillance*

- l. There is a need to further extend the scope of surveillance especially for the endemic hospital-acquired infections e.g. device-related infection, and standardization of the reporting of hospital's infection surveillance data in public hospitals.
- m. It would be an immense advantage to standardize the definitions and methods of surveillance for Hong Kong. Based on the standardized method, training on surveillance should be provided for all frontline workers involve in the process.
- n. A standardized method would enable meaningful inter-institutional comparison with one another and provide data for constructive benchmarking. Benchmarking with data from

reputable programmes from other countries like the NNIS of the USA is also recommended.

- o. Surveillance data should be regularly analysed by the hospital infection control team and any potential problems must be further investigated. Infection control deficiencies that are identified must be addressed and any improvements to be documented by the ongoing surveillance programme.
- p. Surveillance data should be appropriately disseminated with feedback to the staff. The ultimate aim is the improvement of infection control practices e.g. SSI rate to specific surgeons. There should also be mechanism established to report these statistics to frontline workers. e.g. via newsletter.
- q. All hospitals should establish surveillance on sharps injuries and mucosal exposures, staff sick leave, immunization status of healthcare workers.
- r. There should be policy on mandatory reporting of surveillance findings to the infection control committee in all hospitals

#### 10. *On Active Prevention of Infectious Diseases Outbreaks*

- s. Hospitals should have the capabilities to identify the occurrences of outbreaks through the review of microbiological and surveillance data. The feedback of information from the hospital staff can also assist in this process.
- t. Outbreaks ought to be investigated in a timely manner by the hospital infection control team and the necessary preventive measures must be put in place.
- u. When needed there should be access to the expertise ( e.g Centre for Health Protection) for a major outbreak investigation including the performance of proper case-control studies.
- v. The infection control team should supervise the isolation of patients with infectious diseases in the hospital.

#### 11. *Education and Training of Healthcare workers*

- w. The infection control team must provide ongoing educational programs for the hospital frontline staff.

- x. Special educational programmes are also needed whenever new guidelines or policies are introduced.
- y. It would be advantageous to develop a network of frontline staff that is especially knowledgeable on the infection control guidelines of the hospital, to assist the infection control team in implementation and monitoring of compliance. The introduction of the link-nurse system is highly recommended.
- z. All educational programmes should be evaluated periodically for effectiveness and the attendance recorded.

12. *Involvement in Employee Health*

- aa. The infection control team should be involved in the development of policies and programmes for the prevention of infections among healthcare workers.
- bb. The implementation of an appropriate immunization programme and the provision of staff counselling where needed should be ensured.

13. *Involvement in Antimicrobial Stewardship Programme (ASP)*

cc. There is ample evidence showing that antimicrobial-resistant infections lead to worse clinical outcomes, increased morbidity and mortality, and prolonged hospitalization. In view of its global increasing trend, the World Health Organisation in 2002 called for response with interventions at local, national, regional and global levels.<sup>12</sup> It is recommended that the infection control team should be involved in ASP on a routine and long-term basis.

14. *Involvement in other related activities*

- dd. They should also participate in ensuring the proper use of disinfectants and sterilization in the hospital and also proper disposal of hospital waste. Their expertise is also needed in the evaluation of new devices and equipments in the hospital.

15. *Collaboration with the Centre for Health Protection (CHP)*

- ee. The infection control team should collaborate with CHP to work in areas such as surveillance, infection control measures, outbreak management and so forth from time to time to protect health of patients and staff in the health care environment

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