



衛生防護中心
Centre for Health Protection

Scientific Committee on Infection Control

Recommendations on Prevalence Survey of Hospital Acquired Infections

Background

Hospital acquired infections (HAI) cause extra sufferings to patients and health care costs to the community. Prevalence survey on HAIs can give us a general picture on the size of problem, and it is documented that repeated surveys are tools for monitoring the trend of HAIs within individual hospital.¹⁻⁴

2. The Scientific Committee on Infection Control discussed various practical issues in relation to the conduct of prevalence survey of HAIs in local hospitals, and the following recommendations were made.

Recommendations

3. Taking into account the overseas experience in HAI prevalence survey^{1,5,6,7}, the following standard practices are recommended.

(a) Team composition

(i) The team should have infection control officers (ICO), microbiologists and infection control nurses (ICN). Participation of link-nurse, ward staff and attending physicians may be helpful.



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- (b) Case Definition
 - (i) Standardised definition of infection should be adopted (e.g. #HIS, +CDC).
- (c) Questionnaire
 - (i) A standardized, simple questionnaire (e.g. 1 page) containing the minimum data set is recommended.
- (d) Pre-survey training
 - (i) Training should include the understanding of definitions of infections, methodology of the survey and overall planning of the protocol.
- (e) Sampling size
 - (i) Preferably include all in-patients of the hospital, subject to the availability or resources.
- (f) Data collection and validity
 - (i) Trained staff (preferably ICN) should be responsible for data collection.
 - (ii) Ward staff or link nurse can help in provision of information e.g. demographic data, existing illness.
 - (iii) ICO / Microbiologists should also participate actively in case review to ascertain the data validity, especially when the diagnosis infection is uncertain.
 - (iv) Laboratory and other investigations ordered on the day of survey should be included in the data collection.
- (g) Prevalence Rates Calculation
 - (i) Appropriate numerators and denominators should be used for the rate calculation. Some of the important formulae are listed in the appendix.
- (h) Frequency and timing
 - (i) Regularly repeated survey (e.g. every 3 years) is useful to review the trend of infection.
 - (ii) Point prevalence survey should better be completed in the whole hospital within one day. If it is not possible, the survey of a ward/

unit should be completed within a day.

(i) Comparison

- (i) Repeated surveys should be performed for internal comparison by individual hospital.
- (ii) A central organization may co-ordinate different hospital to obtain aggregated local figures.

[#]HIS – Hospital Infection Society

⁺CDC – Centre for Disease Control and Prevention, US

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Appendix

Calculation of some important prevalence rates

Community acquired infection (CAI) rate =
Total number of patients with CAI / Total patient surveyed

Hospital acquired infection (HAI) rate =
Total number of patients with HAI / Total patients surveyed

Surgical wound infection rate =
Total number of surgical wound infections / Total patients with surgical operations

Urinary catheter related infections (CRUTI) rate =
Total number of patients with CRUTI / Total patients with urinary catheters

Ventilator related pneumonia (VAP) rate =
Total number of patients with VAP / Total patient with ventilators

Reference

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