

EDITORIAL

Hospital associated infections or nosocomial infections have been in existence from the time patients were collectively cared for in hospitals but has gained prominence only in the last two decades. As medicine has become increasingly complex in its diagnostic and treatment capabilities, larger numbers of patients are kept alive who, in former years, would have succumbed to their disease. Success with sophisticated treatment modalities has been achieved at the expense of growing numbers of patients with increased susceptibility to opportunistic infections.

In the United States it is estimated that about 2 million out of the 30 million patients admitted to the nation's hospitals each year develop hospital associated infections. This represents an attack rate of 5% and constitutes a waste of patient days of treatment resulting in economic loss.' There is also significant morbidity and mortality from these infections.

There are no such figures available for Malaysia although a significant number of nosocomial infections in hospitals do occur throughout the country.

Certain predisposing factors play an important role in the pathogenesis of hospital associated infections. These can be grouped under 3 major headings:—

- (1) Personnel factors such as handwashing, standards and practices for isolation; aseptic procedures for wound dressings, instrumentation, catheterization, etc., traffic in intensive care units; infections in personnel and treatment of personnel exposed to communicable diseases are but a few.
- (2) Environmental factors include housekeeping standards, procedures, materials and actual practices in general patient care areas, in isolation units and in the operating room, ventilation, humidification, waste disposal, maintenance and monitoring of autoclaves, standards and practices in the Central Sterile Supplies Unit and operating rooms, disinfection and antiseptic policies, skin preparation as well as many others.
- (3) Host factors. Examples of these are antibiotic usage, unnecessarily prolonged use of intravenous and urinary catheters, inhalation therapy, existence of diseases and physiological conditions predisposing to infection and immunosuppression.

A few years ago, the staphylococci were the main cause of nosocomial infections but now the more dangerous gram negatives such as the *Klebsiella*, *Serratia* and *Pseudomonas* have become prominent. It is imperative that effective measures for control of these infections be undertaken in every hospital in the country. One such measure is the setting up of an Infection Control Committee.

A competent and active infection control committee is the most important part of a programme for control of nosocomial infections. The committee requires adequate input to assess the frequency of nosocomial infections and the factors predisposing to it. This will consist of efficient surveillance of all patients to provide rapid detection of such infections and evidence of routes of cross-infection. Selective monitoring of personnel and the hospital environment may be required from time to time to investigate specific problems. This information must be analysed by the committee which may then make recommendations for the control of predisposing factors through improvements in institutional practices. Changes in personnel practices and institutional policies may be accomplished through written regulations and memorandums but these must be supplemented by an extensive educational programme. Effective infection control measures will

only be practised by hospital personnel if they are convinced of their value and not because of legislation!

S.D. Puthucheary
Associate Professor
Department of Medical Microbiology
Faculty of Medicine
University of Malaya
Kuala Lumpur

REFERENCE

1. Bartlett RC. Control of hospital-associated infections. A, Infection surveillance and control. In: Lennette EH, Spaulding EH, Truant JP, eds. Manual of clinical microbiology. Washington DC: American Society for Microbiology, 1974: 841–5.