Nosocomial Infection Control in Thailand
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**Abstract**
Nosocomial infections (N.I.) are one of the most important but neglected health problems in all countries including Thailand. An international survey in 1983 revealed a prevalence rate of 8.4 per cent. In Thailand, the N.I. control started in 1971 in one of the newly built university hospitals. In 1982, training programmes on N.I. control were introduced into the Ministry of Public Health. These were hampered by the shortage of manpower and budgets. Four years later, the Nosocomial infection Control Group of Thailand was established. By the co-operation of members and the financial support by private companies, a national survey on N.I. was conducted in 1988. It showed a prevalence rate of 11.7 per cent. Since then, campaigns against N.I. have been launched, guidelines have been distributed and an annual national meeting on N.I. control has been organized. A similar study was repeated in 1992, which revealed a prevalence rate of 7.3 per cent, a reduction of 4.4 per cent. The success was attributed to the contribution of members of the Group and the encouragement by the administrators. Furthermore, the N.I. control has been officially introduced into Siriraj Hospital, the first such official job in hospitals in Thailand. It is optimistic that such development be spread to other hospitals in the country in the near future. (*J Infect Dis Antimicrob Agents* 1993;10:49-51)

**Key words:** Nosocomial infection

Nosocomial infections (N.I.) are one of the most important but neglected health problems. Patients secondarily infected in hospital have been a familiar picture since the ancient time. An international study conducted by the World Health Organization in 1983 revealed a N.I. prevalence rate of 8.4 per cent (1). In other words, at any time, 8.4 out of 100 patients in the hospitals are complicated by N.I. If we look at the world, on any day, there are some 1,400,000 patients who suffer from this complication. N.I., therefore, are the most common disease in hospitals. The prevalent sites of N.I., in decreasing order, are urinary tract, respiratory tract, surgical wounds and gastro-intestinal tract respectively. N.I. results in morbidity, delay in recovering from and often adversely affect the result of treatment of the original illnesses of the patients. Furthermore, N.I. are the direct and indirect causes of death in 6 and 7 per cent of the affected cases (2). The impact of N.I. on economy, both of the hospital and patients has been well recognized. N.I. are due mainly due to bacteria in hospitals, which are resistant to anti-microbials. Spreading of these pathogens to other parts of the hospitals and to the community is not uncommon. From the above impacts of N.I., their control is imperative for every country. In

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Table 1 The prevalence rates (%) of N.I. in Thailand, comparing those of 1988 and 1992.

<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>Univ. hosp.</th>
<th>Region. hosp.</th>
<th>Prov. hosp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>11.7</td>
<td>10.0</td>
<td>18.8</td>
<td>8.2</td>
</tr>
<tr>
<td>1992</td>
<td>7.3</td>
<td>6.7</td>
<td>9.3</td>
<td>6.6</td>
</tr>
<tr>
<td>Reduction</td>
<td>4.4</td>
<td>3.3</td>
<td>9.5</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Thailand, N.I. control has been in practice for a long time, its success and failure merit a critical review.

N.I. control is one of the measures to accredit hospitals in most developed countries. In Thailand, N.I. control started in 1971 at Ramathibodi Hospital. The programme was supported by the Rockefeller Foundation. In 1979, The Ministry of Public Health employed N.I. control as one of the measures to improve the quality of medical care. Training courses on N.I. control have been organized since 1982. The training programme has been interrupted by the "ever changing" policies by the shortage of budget and experts in this subject. In 1983, an international study was organized by WHO (1). Siriraj Hospital was chosen as a participating member. It was found that the N.I. prevalence rate in Siriraj was 9.4 VS 8.4 per cent of the international study. World Health Organization have published the results of the study to member states and encourged them to intensify N.I.control programmes. The response, however, is somewhat depressing, mainly due to the lack of enthusiasm among administrators and politicians, and above all, the lack of money support.

As the official management in N.I. control failed, enthusiastic people were grouped in 1986 under the name of the Nosocomial Infection Control Group of Thailand. A national workshop was organized in the following year. The definitions of N.I. had been standardized and subsequently used in a national survey on N.I. in 1988 (3). The prevalence rate then was 11.7 per cent which was much higher than those in developed countries such as U.S.A. or U.K. From the study, it can be deduced that there were about 200,000 N.I. cases, with 12,000 deaths. The economy loss through N.I. in Thailand was estimated at 1,000 million baht per annum.

The results of the above study did not followed by the improvement of N.I. control. Lack of money, shortage of manpower and absence of a clear policy are reasons behind the failure. Practices in N.I. control were confined to the setting up of committees. There were no directly responsible unit for N.I. control. This job was usually assigned to the department of community medicine (4). The Ministry of Public Health has included N.I. control as one of its function in the seventh National Development Plan. It will take a very long time to function amid the policy of reducing the number of civil servants.

Whilst awaiting for the official organization to act, the Nosocomial Infection Control Group of Thailand began their academic function in 1987. Annual national conference has been organized ever since. Furthermore, the Group have distributed a bulletin, textbooks, and sheets to the people concerned. Often, consultations are made through telephone. Lectures in various places as well as arranging visits for guests, both local and alien are important functions of the Group. Their efforts have been rewarded at least by:

1) The reduction of N.I. rates. The study on the prevalence of N.I. in Thailand was repeated in 1992 4 years after launching the campaign. The results are compared in the following table 1 (5).

It was found that the prevalence rates of N.I. decreased significantly in 1992 when compared with those in 1992.

2) The increase in the N.I. control activities. The survey in 1992 showed that all regional and provincial hospitals had set up infection control committees, surveillance programmes and had appointed infection control nurses. However, infection control activities in most places were far from ideal.

The above success was valuable for the welfare of the patients and for economy. Whether this success can be sustained is a real concern. The past activities were carried out by volunteers with some financial support from a few private firms. The official support is to be sought. The establishment of a unit called "Infection Control Section" at Siriraj Hospital in 1992 was a major step in the progress. From now on it is not difficult for other hospitals to set up this unit as well as to allocate "official" infection control nurses.

Nosocomial infection control is made possible only
by the cooperation of hospital personnel of all levels. The co-operation can arise only from the understanding of the facts in this issue. Doctors, who play a major role are generally not interested in infection control and are not very co-operative. Efforts to convince doctors should continue, regardless how difficult they are. Other important factors for infection control are basic infrastructures of the hospitals, for example, water supply, sewage system, water treatment, disposal of hospital wastes etc. Improvement of these facilities requires a substantial amount of money. All administrators understand that prevention of diseases is better than cure. How many administrators act according to this fact is another matter. The reason behind this issue is that prevention takes longer time for the success than cure. National policy on prevention of diseases must be emphasized. Nosocomial infection control raises the standard of medical care by reducing morbidity and mortality. In long term, a lot of money for treatment of N.I. can be saved and this amount is much more than that used for N.I. control.

REFERENCES