

# Roles of Infection Control Nurses in University Hospitals

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**Objective:** To evaluate the roles of infection control nurses (ICNs) in university hospitals.

**Material and Method:** Interviewing 23 ICNs in 6 university hospitals applying for hospital accreditation during March and April 2002.

**Results:** The ICNs had an average work experience of 11.3 years. The roles relatively well carried out by the ICNs were: administration, outbreak investigation, personnel health, education, consultation. Better performance was needed in the roles of presenting surveillance data to infection control committee, research and analyzing the needs and expectation of patients related to IC.

**Conclusion:** Infection control nurses in university hospitals could perform their roles relatively well. However, better roles in surveillance, research and quality improvement need to be developed.

**Keywords:** Roles, Infection control nurses, University hospitals

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Nosocomial infection (NI) is a major complication affecting patients admitted in hospitals. The infection prolonged hospital stay by 10.6-17 days, and reduced the number of hospital admissions<sup>(1,2)</sup>. Healthcare workers risk exposure to infection while taking care of patients who carry pathogenic organisms<sup>(3)</sup>. The incidence and impacts of NI is greater in tertiary care institutions<sup>(4)</sup>. Prevention of NI is the responsibility of all personnel and the incidence of NI is an important indicator of the quality of care in a hospital<sup>(4)</sup>. A good NI control is required for the accreditation of a hospital.

Infection control nurses (ICNs) play an important role in NI control. Their job assignments have been set by the Department of Nursing, Ministry of Public Health in the Standards of Infection Control Practice, Jubilee Celebration year 1999. Owing to the shortage of ICNs, their practices need to be evaluated. Information on their functions, problems and obstacles are crucial for the improvement of their performance.

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## Material and Method

A descriptive study was done in six university hospitals applying for hospital accreditation. In these hospitals, there were 23 ICNs. They were interviewed by the researchers during March and April 2002 using a semi-structured interview form. It was validated by 5 experts in IC. Data on demography, performance of ICNs according to their assignments, problems and obstacles encountered and their needs of support were collected. Descriptive statistics were used in the analysis.

## Results

The interviewees were 23 female ICNs. About one half graduated with a bachelor degree. Their mean work experience as ICN was 11.3 years. Thirty-four point eight per cent were 41-45 years old and 30.4% 46-50 years.

The majority of ICNs were involved in setting policy, strategies and practice in IC. All were responsible for NI surveillance and 74.0% presented the surveillance data to administrators. The ICNs notified the infection control committee of the hospital in the event

of a possible outbreak and took part in the investigation and intervention of an epidemic NI.

Health of healthcare workers (HCWs) in the university was the responsibility of the department of preventive medicine. Therefore, all ICNs were not involved in pre-employment health screening or annual check up of HCWs. However, some assisted in providing immunization to some groups of HCWs.

In the education role, the majority of ICNs evaluated the knowledge and assessed the need of education in IC of HCWs. They gave advice to responsible personnel on waste management, wastewater treatment, environmental hygiene. Regarding disinfection/sterilization, ICNs were less involved because there were units directly responsible for the issue. The role in research was the least practised due to an excessive work load. Some ICNs participated in some research projects and 47.8% had never done research as the principle investigator.

Most ICNs participated in the initiation and promotion of quality development. Specifically in IC, the analysis of the needs and expectations of patients was done by 13.0% of ICNs. All ICNs collected data indicative of the quality of IC.

Problems encountered by the ICNs were excessive workload, inadequate knowledge to educate HCWs; lack of budget to support equipments for IC, to immunize HCWs and to further studies for ICNs. Implementation of IC policy was also to be improved. Textbooks and other education media in IC were needed in 13.0% of ICNs.

### Discussion

The study was done in 6 university hospitals applying for hospital accreditation in 2002. Infection control is one of the major criteria for accreditation. Infection control nurses are involved in routine IC practices. They were assigned to perform 8 functions : administration, surveillance, outbreak investigation, personnel health, education, consultation, research and quality development. The study demonstrated that they were unable to perform several functions for different reasons. In administration, IC was not fully implemented due to lack of enforcement by administrators of hospitals and lack of co-operation of HCWs, especially doctors. Surveillance on NI is the most important function of ICNs,<sup>(5-8)</sup> only 74.0% of ICNs had presented their surveillance data to administrators. The findings indicate that, in a large proportion, the surveillance data were left without being applied for IC practices<sup>(9)</sup>. Research by ICNs has yet to be promoted because upto

one half had no experience as the principle investigator. The ICNs were more privileged than their colleagues in other hospitals because there are ICN posts in university hospitals. Their career ladder in IC is guaranteed. Even so, only 87.0% of the ICNs in university hospitals ever attended a course in IC. Their knowledge and competency have to be assessed and improved accordingly.

Shortage of supply of necessary equipments for IC is a common problem in most hospitals in developing countries. Prudent use of the currently available equipments is the present solution and better supply is to be provided by administrator<sup>(10)</sup>.

### Conclusion

Infection control nurses in university hospitals had an excessive work load leading to inadequate utilization of surveillance data. Their opportunity in acquiring knowledge and research experience needed support from administrators.

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## บทบาทของพยาบาลควบคุมโรคติดเชื้อในโรงพยาบาลมหาวิทยาลัย

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**วัตถุประสงค์ :** ศึกษาบทบาทของพยาบาลควบคุมโรคติดเชื้อในโรงพยาบาลมหาวิทยาลัย

**วัสดุและวิธีการ :** สัมภาษณ์พยาบาลควบคุมโรคติดเชื้อในโรงพยาบาล 23 คน ในโรงพยาบาลมหาวิทยาลัย 6 แห่ง ที่ลงทะเบียนเพื่อรับการประเมินคุณภาพ ระหว่างเดือนมีนาคม-เมษายน พ.ศ. 2545

**ผลการศึกษา :** พยาบาลควบคุมโรคติดเชื้อเป็นหญิงทั้งหมด มีประสบการณ์ปฏิบัติงานควบคุมโรคติดเชื้อเฉลี่ย 11.3 ปี บทบาทของพยาบาลควบคุมโรคติดเชื้อที่ปฏิบัติได้พอสมควรคือ การบริหาร, การสอบสวนการระบาด, การดูแลสุขภาพบุคลากร, การให้ความรู้, การให้คำปรึกษา ส่วนที่ปฏิบัติได้น้อย ได้แก่ การเสนอผลการเฝ้าระวังโรคติดเชื้อในโรงพยาบาลแก่คณะกรรมการควบคุมโรคติดเชื้อ, การทำวิจัย และการวิเคราะห์ความต้องการ และคาดหวังของผู้ป่วยเกี่ยวกับการติดเชื้อในโรงพยาบาล

**สรุป :** พยาบาลควบคุมโรคติดเชื้อในโรงพยาบาลมหาวิทยาลัยปฏิบัติตามบทบาทได้ตามที่มอบหมาย แต่บทบาทที่ต้องปรับปรุงคือ การเฝ้าระวังโรค การวิจัย และการพัฒนาคุณภาพ