Interdisciplinary approach to healthcare-associated infections surveillance in Japan

Mayumi Aminaka1, Keiko Okamori2, Kiyomi Hosoda3, Naoko Konishi4, Chie Shibuya5, Hisami Tanimura6, Atsuko Tsutsui6, Yumiko Zamma7, Kunikazu Yamane3, Satowa Suzuki6

1National College of Nursing, Japan, 2Beiskai Medical Treatment Corporation Headquarters, 3Fukuiken Saiseikai Hospital, 4Japanese Nursing Association, 5HAICS Okinawa, 6National Institute of Infectious Diseases, 7Saka General Hospital, 8Yonago Medical Center

Introduction

Japan Nosocomial Infections Surveillance (JANIS) is a voluntary national surveillance with more than 1,800 participating hospitals. JANIS consists of five divisions, and hospitals can choose which divisions to join, based on their need and capacity (Figure 1).

In Japan, hospital epidemiologists who usually conduct nosocomial infections surveillance are not common. However, the rate of data submission to JANIS is high (>95%), and the dropout rate is low (<3%). We investigated the types of hospital professionals that are conducting surveillance and submitting data to JANIS.

Methods

We conducted on-site, structured interviews using a questionnaire developed by a working group of infection control practitioners. Hospitals were chosen from JANIS member hospitals that participate in both the surgical site infection (SSI) and antimicrobial-resistant bacterial infection (ARBI) divisions.

We interviewed 20 hospitals in seven areas of Japan from July to December of 2015. In the interview with infection control personnel, we asked the types of profession (nurse, doctor, clinical microbiologist, etc.) that are responsible for conducting surveillance.

Results

Twenty hospitals have beds counting from 80 to 1,063 (median, 355.5). The median length of hospital stay was 12.6 days (9.8-33.2). The period of participation in JANIS was one to eight years (Table 1).

More than two types of professionals are conducting surveillance at 13 (68.4%) hospitals for SSIs and 17 (89.5%) hospitals for ARBIs (Figure 2 & Table 2).

The most prevalent profession in charge of SSI surveillance were nurses (95%), followed by medical doctors (63%) and clerks (32%). For ARBI surveillance, nurses (95%), clinical microbiologists (79%), and medical doctors (63%) were in charge (Figure 3).

There was no association between hospital size (bed count) and involvement of multiple professions in the surveillance (SSI division, 397 beds vs. 299 beds, p=0.57; ARBI division, 380 beds vs. 468.5 beds, p=0.84) (Figure 4).

Discussions

Although hospital epidemiologists are not common in Japan, most Japanese hospitals, regardless of hospital size, have multiple professionals conducting surveillance and sharing data.

Nurses and medical doctors play key roles in surveillance; however, the workload is shared with other professionals, which may be the reason for the high sustainability.

This interdisciplinary approach to surveillance may help improve infection control practices in all professions and departments.

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