

Introduction

Activities of infection control and prevention are diverse and complicated. Regular and well-organized inspection of infection control is essential element of infection control program. Several studies related to performing leadership rounding to reduce healthcare-associated infections (HAIs) have been conducted. However, there is a limited amount of information regarding the scope of regular infection control team rounding (ICTR) that comprehensively examines all categories of infection control activities in different hospital departments.

Therefore, this study aims to investigate the functional scope of ICTR on infection control activities by examining the applicability of each item on the rounding checklist in a real hospital setting.

Materials and Methods

This study was conducted at Soonchunhyang University Seoul Hospital, a 734-bed academic hospital in Republic of Korea. In this study, the results of the ICTR performed in our hospital between January and December 2018 were analyzed retrospectively. Since January 2018, the rounding results were categorized into the following five groups: “well maintained,” “improvement needed,” “long-term support, such as space or manpower, needed,” “not applicable,” or “could not be observed.” The classification criteria were determined on the basis of a consensus reached by infection control team members.

Materials and Methods

The following nine categories of infection control and prevention items were included: (1) hand hygiene (8 items); (2) safety injection practice (9 items); (3) isolation (10 items); (4) strategies to prevent occupationally acquired infections (6 items); (5) practices to prevent catheter-related (central, urine catheter), surgical site infection and pneumonia (16 items); (6) decontamination, disinfection, and sterilization (19 items); (7) linen and laundry management (6 items); (8) environmental prevention of infection (8 items); and (9) maintaining negative/positive pressure (3 items)

During each ICTR, at least two categories were monitored. The schedule and inspection items were communicated to each department in advance. The inspection was conducted through direct observation or an interview, and the results were entered by the infection control team members.

Results

A total of nine categories with 85 infection control and prevention items were observed. During the study period, ICTR was performed a total of 45 times in 36 departments. Furthermore, a median of 7 (interquartile range [IQR]: 6–7) ICTR visits were performed in each department and a median of 16 practices (IQR: 12–22) were assessed during the ICTR, and 7452 results were recorded.

Results

Of those, 74.6% (5558) were observed: “well-maintained” practices constituted 69.9% (5208), “improvement needed” accounted for 4.4% (331), and “long-term support needed” accounted for 0.3% of all practices (19). A total of 1601 (21.5%) results were “not applicable” and 293 (3.9%) were difficult to observe through ICTR (Table 1). Among applicable practice results, the most common practices that were difficult to observe were strategies to prevent catheter-related, surgical site infections, and pneumonia (12.6%, 68/538) as well as injection safety practices (8.6%, 65/758) and strategies to prevent occupationally acquired infections (6.4%, 37/578) (Fig. 1).

Table 1. Results of infection control team rounding

| Categories of practices | A (%) | B (%) | C (%) | D (%) | E (%) | Total |
|--|-------------|-----------|----------|-------------|-----------|-------|
| Hand hygiene | 936 (93.6) | 46 (4.6) | 0 | 0 | 18 (1.8) | 1000 |
| Safety injection practice | 664 (75.0) | 28 (3.2) | 1 (0.1) | 127 (14.4) | 65 (7.3) | 885 |
| Isolation | 391 (57.5) | 12 (1.8) | 0 (0) | 262 (38.5) | 15 (2.2) | 680 |
| Strategies to prevent occupationally acquired infection | 506 (80.6) | 35 (5.6) | 0 | 0 | 37 (5.9) | 628 |
| Practice to prevent catheter-related (central, urine catheter) or surgical site infections and pneumonia | 451 (48.6) | 19 (2.0) | 0 (0) | 390 (42.0) | 68 (7.3) | 928 |
| Decontamination, disinfection, and sterilization | 1349 (69.6) | 128 (6.6) | 12 (0.6) | 388 (20.0) | 61 (3.1) | 1938 |
| Linen and laundry | 451 (78.7) | 33 (5.8) | 6 (1.0) | 77 (13.4) | 6 (1.0) | 573 |
| Environmental prevention of infection | 403 (68.1) | 24 (4.1) | 0 | 142 (24.0) | 23 (3.9) | 592 |
| Maintain negative/positive pressure | 57 (25.0) | 6 (2.6) | 0 | 165 (72.4) | 0 | 228 |
| Total | 5208 (69.9) | 331 (4.4) | 19 (0.3) | 1601 (21.5) | 293 (3.9) | 7452 |

A: “well maintained”, B: “improvement is needed”, C: “long-term support such as space or manpower is needed”, D: “not applicable” and E: “could not be observed.”

Results

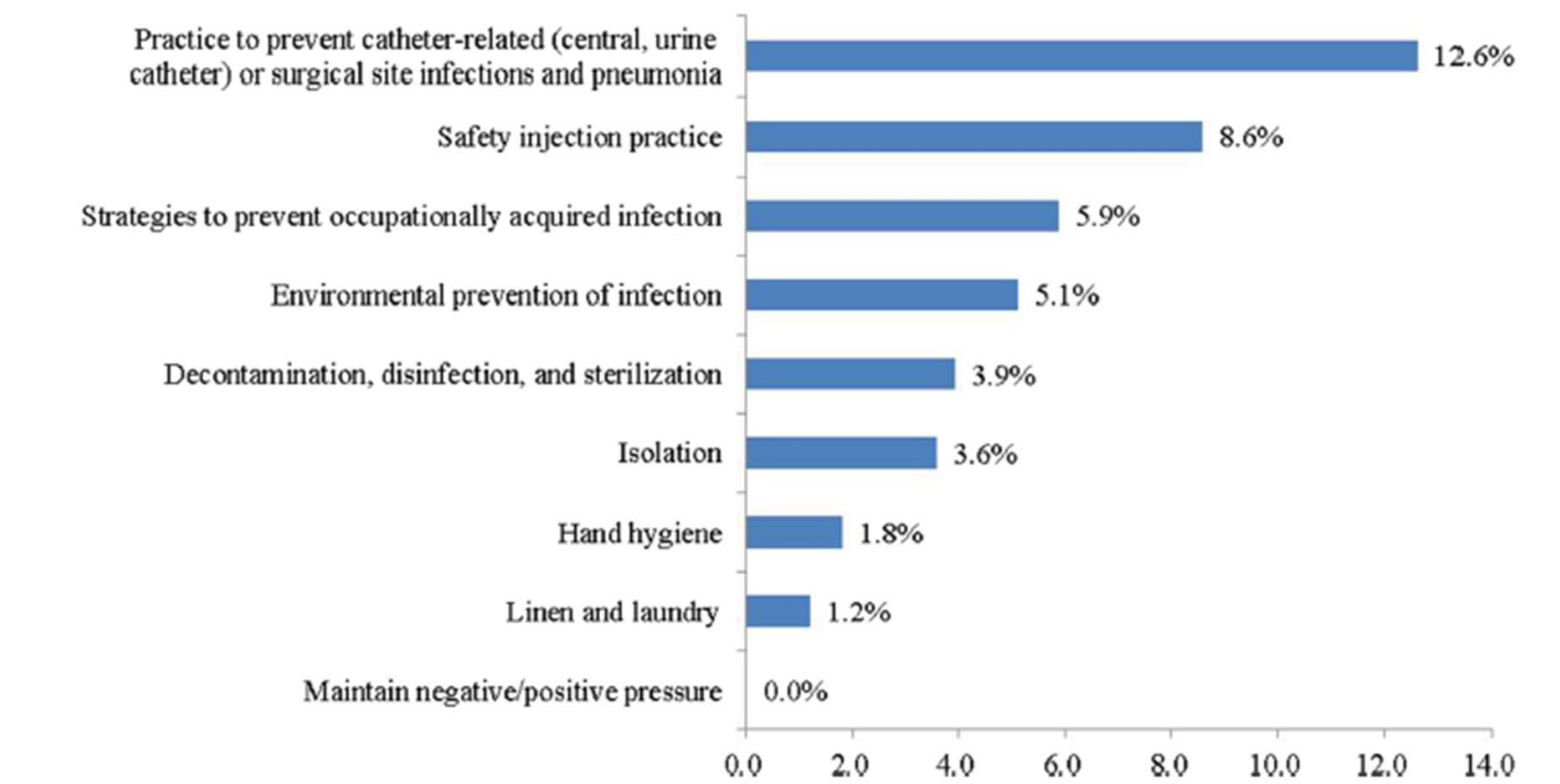


Figure 1. Categories of practices that were difficult to observe through regular infection control team rounding

Conclusions

Our study showed that the majority of HAI prevention practices implemented at our hospital can be monitored through regular ICTR. As a result of the ICTR and the assessment that followed, we found that the reasons behind underperformance in some infection control activities lie at the individual and organizational levels. Moreover, we identified a limitation of regular ICTR: some infection control activities are not applicable to patients and cannot be monitored through regular ICTR. Infection prevention practices associated with preventing catheter-related infection and surgical site infections were found to be more difficult to monitor. Considering these findings, it is necessary to revise the protocol to ensure that all infection control activities can be practiced and monitored correctly in accordance with the manual.