

soap and ABHC on the wards. Most ABHC is used from dispensers placed at the foot of the bed, in easy reach of the patient. This is in contrast to other studies involving improved access to sinks that failed to show an associated improvement in handwashing compliance.^{5,6} This disparity is perhaps explained by the difference in distance from the patient; our study showed that more ABHC is used if it is in proximity to the patient than if it is by the sink. The problem is perhaps that sinks are too far from patients. This finding is given credence by the fact that pocket-sized bottles of ABHC carried on the healthcare worker's person have also been shown to improve compliance with hand hygiene,⁷ as has increasing the availability of dispensers from 1 unit per 4 beds, to 1 unit per bed.⁸ Interestingly, there was no difference in the amount of soap used between single-bed and quadruple-bed rooms, a finding in contrast with the results of another study, which showed that significantly more hand washes were performed when the ratio of sinks to beds was 1:1.⁹ This disparity may be explained by differences in the use of ABHC and soap. For instance, washing heavily soiled hands may call for soap, whereas more routine hand cleansing may be done with ABHC.

Use of ABHC seems more popular if it is placed at the foot of the bed than if it is placed elsewhere. It may be that this difference represents usage for a number of tasks at the bedside other than hand washing—this study did not observe handwashing behavior. However, it is equally possible that this represents a simple intervention that can promote hand cleansing by making this easy and convenient for healthcare workers, patients, and visitors to the wards.

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No Room at the Inn: Fever and Respiratory Illness Precautions and the Placement of Patients Within an Ontario Acute Care Institution

TO THE EDITOR—Following the severe acute respiratory syndrome (SARS) outbreak, the province of Ontario, Canada, instituted standards for the control of and surveillance for febrile respiratory illness (FRI) in acute care institutions.^{1,2} FRI is defined as a new or worsening episode of either cough or shortness of breath, in conjunction with fever (temperature, 38°C or higher) or chills in the past 24 hours. North York General Hospital is a 420-bed community teaching hospital in Toronto in which all pediatric beds are in single-bed rooms but only 25% of beds in the medicine service and 20% of beds in the surgery service are in private rooms. In accordance with published recommendations, patients with FRI are preferentially admitted to single-bed rooms and placed under droplet and contact precautions, with occasional cohorting.

We investigated the difference in the median interval between hospital admission and placement in an inpatient acute care bed (defined as the time-to-bed [TTB]) for patients who presented to the hospital's emergency department with or without FRI. Data on these patients, including the TTB, the length of hospital stay, and the service they were admitted to, were obtained from medical records by means of Med 2020 (Health Care Software). Between September 1, 2003, and June 30, 2005, the infection prevention and control department at the hospital collected data on all admitted patients who met the FRI definition.^{1,2}

The peak time for most respiratory illnesses is between November 1 and March 31.³ The peak season of respiratory illness during 2003-2004 was defined as the period from November 1, 2003, to March 31, 2004, and the peak season during 2004-2005 was defined as the period from November 1, 2004, to March 31, 2005. The period from November 1,

2001, to March 31, 2002, was selected as a control to assess differences in the number of available beds and the length of hospital stay between the peak seasons of respiratory illness before (ie, during 2001-2002) and after (ie, during 2003-2004 and 2004-2005) the SARS outbreak. Statistical analysis was performed using SPSS software, version 9.0.1 (SPSS).

Between September 1, 2003, and June 30, 2005, a total of 1,830 cases of FRI were identified, 753 of which were detected during the seasons after the SARS outbreak. The number of visits to the emergency department decreased from 27,586 during the 2001-2002 season to 24,852 (90% of the control value) during the 2003-2004 season but rebounded to 26,795 (97% of the control value) during the 2004-2005 season. The percentage of patients admitted to the hospital through the emergency department decreased slightly from 17.1% during 2001-2002 to 16.1% during 2003-2004 and 16.3% during 2004-2005 ($P \leq .01$).

The number of admissions to the medicine service and the proportion of patients with FRI are shown in the Table. The median TTB for medicine-service patients with FRI in the emergency department was 9.3 hours longer during 2003-2004 and 7.9 hours longer during 2004-2005, compared with medicine-service patients without FRI ($P \leq .001$) (Table). Increased median TTBs were not observed for patients with FRI admitted to the pediatrics service, despite a large proportion of patients in that service with FRI, or for patients admitted to surgical units. Compared with the 2001-2002 season, there were fewer available medicine-service beds during the 2003-2004 and 2004-2005 seasons (Table). The length of hospital stay was not significantly different in any of the services during the 3 seasons under study. These findings cannot be explained by differential prioritization of patients with FRI for transportation (centralized portering) or differ-

ent cleaning/turnover of rooms in specific hospital services (ie, medicine, surgery, pediatrics). Admission to a single room was based on need or on hospital capacity and was independent of socioeconomic status.

In an era of fiscal restraint in which the overall number of hospital beds in many institutions continues to diminish, creative hospital resource management and staff scheduling strategies must be used to increase the numbers of single-bed rooms available.⁴ The authors of the present article suggest that, rather than closing a 4-bed ward room, the same net result can be achieved by removing 1 of 2 beds in each of 4 double rooms. The latter option achieves a net increase in 4 private rooms while achieving a similar reduction in the number of beds. Improvement of patient placement may also require creative staffing solutions and/or the cohorting of patients by syndrome (eg, FRI) or respiratory virus.⁵

We have noted that North York General Hospital has struggled with implementation of FRI precautions and patient placement during peak periods of seasonal influenza. As our institution routinely functions at nearly 100% occupancy, with very little surge capacity, any significant surge in the number of patients presenting with FRI will likely exacerbate the problem. Adherence to the new guidelines will clearly not be feasible during an influenza pandemic with a significant attack rate. Questions about the feasibility of these implementing guidelines during pandemic influenza raise issues regarding staff confidence and trust, especially if a change in recommendations was to occur during such a critical time for the healthcare system.

The 2003 and 2005 Ontario guidelines^{1,2} are meant to improve the safety of patients and staff by reducing nosocomial exposure and transmission of viral respiratory disease. The placement of patients into single-bed rooms decreases the

TABLE. Comparison of the Interval Between Hospital Admission and Placement in an Inpatient Acute Care Bed ("Time to Bed" [TTB]) for Patients With and Patients Without Febrile Respiratory Illness (FRI) in the Medicine Service, by Respiratory Illness Season

Hospital service, season	Median LOS, d	No. of available beds	FRI group		Non-FRI group		P for comparison of TTB between groups
			No. (%) of patients	Median TTB, h	No. (%) of patients	Median TTB, h	
Medicine							
2001-2002	5	188	ND	ND	ND	ND	ND
2003-2004	5	176 ^a	249 (10)	12.9	2,198 (90)	3.6	<.001
2004-2005	5	164 ^a	327 (14)	12.5	2,074 (86)	4.6	<.001
Surgery							
2001-2002	7	87	ND	ND	ND	ND	ND
2003-2004	6	71 ^a	11 (1)	1.8	787 (99)	2.7	.340
2004-2005	6	89 ^a	10 (1)	2.4	908 (99)	2.1	.864
Pediatrics							
2001-2002	3	15	ND	ND	ND	ND	ND
2003-2004	3	15	76 (27)	1.1	207 (73)	1.1	.507
2004-2005	3	15	80 (25)	1.2	240 (75)	1.3	.907

NOTE. LOS, length of stay; ND, no data.

^a $P < .05$ for comparison across periods.

spread of communicable diseases and also has a positive impact on patient care and the individual patient's sense of well-being.⁶⁻⁸ We note that an increased TTB for medicine-service patients may paradoxically increase other healthcare risks associated with overcrowding and increased waiting time in the emergency department.⁹ The impact of such novel strategies on nosocomial respiratory virus transmission, patient outcomes, patient satisfaction, and patient flow should be addressed in future prospective studies.

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