

L/min or who complained of drying nares. All other hospital patients, on low-flow oxygen, did not receive pre-filled disposable humidifier bottles. In the past five years, since our trial, we have not used these devices at all, except as previously stated. In this time, our patients have not experienced drying of the nares or thickening of secretions as a result of not using traditional humidification devices with low-flow oxygen. This approach, as compared with the one suggested in Henderson's article, would create greater cost savings as well as reduce risk of infection in hospital patients.

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The authors reply.

While we applaud the initiative in eliminating the use of routine humidification for oxygen therapy whenever possible, the operative phrase in the statement from the American College of Chest Physicians is "when environmental humidity is adequate."¹

We agree that significant cost savings could be achieved by the elimination of oxygen humidification; however, this is not feasible under all conditions.^{2,3} In Calgary, the average relative humidity ranges from 40% to 45% in summer and 55% to 60% in winter. In addition, cold temperatures in the winter that average -10°C in January and can drop to -35°C dictate extensive use of central heating, which produces very low humidity indoors. Environmental conditions combined with means of oxygen storage (147°C under high pressure) increase the need for humidification. In our acute care tertiary hospital, where the relative humidity is low, humidifiers are no longer used in situations where low-flow oxygen (<4 L/min) is administered for short periods of time (eg, <2 hours in the recovery room). Before making the commitment to eliminate oxygen humidification, it is important to consider both the local environmental conditions and the

method of oxygen storage as well as the flow rate and duration of administration.

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Reducing Laundry Linen Sharps Contamination: Employee Safety Management

To the Editor:

The Perry Point (Maryland) Department of Veterans Affairs Medical Center is a 600-bed facility that has a regional consolidated laundry providing service to an additional six VA Medical Centers. Of the seven, four are tertiary care university-affiliated VA Medical Centers. Unfortunately, there has been persistent recovery of sharp and nonsharp foreign objects in the linen. There have been documented injuries (including needlesticks) reported to employee health, requiring bloodborne pathogen exposure evaluations.

The consolidated laundry staff has been tracking sharps recovery rates among the seven member hospitals since 1988. This program initiative is most applicable to the model of continuous quality improvement (CQI) since the traditional quality assurance concept of "acceptable threshold" does not pertain to a situation where employees handling linen are being exposed to any dangerous occupational hazards such as sharp (or nonsharp) foreign objects. In this case, a zero-defect objective is warranted. However, administrative corrective actions had not been able to demonstrate meaningful improvements until a system for rapid feedback of incidents was established with the member facility (Center F) with the highest historical rates of linen sharps contamination.

INTERVENTION

On July 1, 1992, the Perry Point VAMC laundry used the national VA Medical Center computer network to initiate an electronic mail interface with

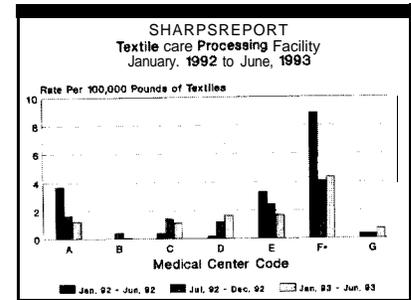


FIGURE. Intervention began July, 1992 at Medical Center F.

the Infection Control Program at Center F, so that recovered sharps could be reported immediately to the source facility. This reporting served as an adjunct to a set of biannual summary reports on sharp and nonsharp laundry contamination. Center F initiated an aggressive program of staff education via the Infection Control Committee, primarily directed at physicians, nurses, and housekeeping staff. Feedback on sharps contamination has been provided to nursing and housekeeping staff at the unit level on a monthly basis, and similar material is included in employee orientation programs. In addition, new medical students and housestaff have been oriented on a monthly and quarterly/biannual basis, respectively, using supplemental "attention sheets." Furthermore, this information was formally conveyed to key executive committees of the Medical Center, so as to enable an appropriate flow of information between clinical and administrative staff.

RESULTS

As shown in the Figure, during the period prior to intervention Center F laundry contained 68 sharps (8.91 100,000 lbs. of sorted linen); in the two six-month periods following intervention, the Center's laundry contained 34 and 33 sharps (4.1 and 4.4 per 100,000 lbs), respectively ($P < 0.01$, Poisson).

The Perry Point VA director formally has notified all consolidated laundry Medical Centers of this presumptive success, since it can serve as a template for similar liaisons with the