

In 1992, a study of housestaff demonstrated a high rate of TST conversion.¹ In addition, OSHA promulgated the Bloodborne Pathogens Standard,² which mandated hepatitis B vaccination, or a signed waiver of vaccination, for all employees with occupational exposure to bloodborne pathogens. These two events emphasized the need for improved employee compliance with infection control policies.

In order to improve employee participation, particularly with hepatitis vaccination and annual TST, a "roving team" of EHS nurses was initiated. The team, consisting of two nurses and a half-time clerk, began in August 1992. New positions were created; personnel were not pulled from existing EHS personnel. The team 1) notifies a ward or clinical area of the upcoming visit, 2) obtains a list of employees, 3) retrieves the EHS medical records of those employees, 4) visits the area to place tuberculin skin tests, draw blood for measles, rubella, varicella, and hepatitis B serology where appropriate, and educate employees about vaccinations, 5) returns 48 to 72 hours later to read TSTs, review results of lab tests, and provide vaccinations for nonimmune employees, 6) records results in EHS medical records, and 7) compiles data resulting from these services.

Employees who are not ward-based, such as physicians and environmental services personnel, are visited during annual infection control updates, during staff meetings, or during departmental programs.

Compliance with TST screening has increased since the team started in August 1992. An average of 72.5 TSTs were done monthly in 1991, 100.7 per month in 1992, and 355.7 per month in 1993. Since the team has been in place for only one year, we cannot report on TST conversion rates yet.

A crude cost-benefit analysis was performed analyzing employee time gained by providing employee health services at the worksite. The time required to travel to and from the EHS clinic, have a TST placed, and return two days later for reading was estimated to be 90 minutes per completed TST. The hourly cost of personnel time (averaging clerk, nursing, physician, and other salaries in proportion to the estimated number of personnel tested from each category) was taken to be \$18.00. Costs attributable to the

roving team included the salaries of the nurses and one half-time clerk. Personnel time for screening at the worksite was estimated to be 10 minutes (0.167 hour). Supplies for testing were assumed to be equal in both systems, so were not included.

Tuberculin skin testing for 4268 (355.7 employees/month. 12 months) employees in EHS would require approximately 6,402 hours (4,268 TSTs each requiring 1.5 hours) of personnel time, or \$115,236 (6,402 hours. \$18.00/hour) in lost wages. Cost analysis does not include the wages of the EHS employees.

New costs attributable to the roving team include two nurses' salaries (approximately \$37,000 each) and the cost of part-time secretarial support (half of a clerk's salary of approximately \$18,000). The annual cost of personnel time for screening at the worksite is approximately \$12,830 (4268 employees. 0.167 hour. \$18.00/hour). Thus, the total cost of roving team screening for 4268 employees in 1993 will be \$95,839, for a net savings of almost \$20,000.

The roving infection control team has dramatically improved employee compliance with TST, helps to protect the health of our employees, and will provide valuable epidemiologic data on TST conversions, at a net savings in personnel costs.

Employee reaction has been uniformly positive. Comments have ranged from "Why wasn't this done sooner?" to "When is the team coming to my area?" Supervisors have been particularly satisfied with the roving team; they no longer have to make difficult decisions about patient care versus employee health.

Although the "roving team" solution may not be necessary in a hospital where infection control screening can be enforced by personnel mechanisms, in our hospital it has proved a very effective method for providing mandated employee health services. OSHA now mandates a comprehensive health care worker TST program; this approach helps to achieve that goal while addressing other mandated screening and prevention programs.

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REFERENCES

1. Cocchiarella L, Cohen R, Muzaffar S. PPD conversion among housestaff in a public hospital. American Thoracic Society International Conference, May 1992. Abstract 467.
2. Code of Federal Regulations. Part 1910.1030. (56 FR.64175).

Efficacy of Pasteurizers

To the Editor:

We were very pleased to see the article in the August issue of *Infection Control and Hospital Epidemiology* titled "Dissemination of *Bacillus cereus* in an Intensive Care Unit." HR Incorporated, as one of the leading manufacturers of pasteurization equipment, welcomes any publication showing the benefits of pasteurization. Product reuse helps eliminate disposable product waste, protects the environment, and reduces hospital costs. However, readers should not get a false impression that pasteurization is the answer to all disinfection needs.

As shown in this outbreak, any pasteurizer can suffer microbial contamination; thus, the conclusions stated in the article are extremely important. HR Incorporated joins the authors in strongly urging readers to carry out all the proper procedures to identify sources of contamination and direct suitable control measures.

We have devised a method to decontaminate the inlet port that was identified in the article as a potential source of contamination. This method applies to all present and future equipment and will be incorporated in the cleaning procedures outlined in our manual. In addition, information on this new cleaning technique will be sent to all present users.

We would like your readers to be aware that both pasteurizers (Olympic and HR Incorporated) became contaminated with *Bacillus cereus*. The HR Steri-Vers System mentioned in the article remains in use at Vancouver General Hospital.

Eleanor S. Hill
 President
 HR Incorporated

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