

Lab Workers' Survey Pinpoints Hazards

Working in a laboratory that is improperly equipped or that provides inadequate health and safety precautions can be dangerous to your health. A recent survey conducted by District 1199 of the National Union of Hospital and Health Care Employees in 34 New York City hospitals showed that 7 percent of the laboratory workers reported a history of hepatitis, a serious infection associated with laboratory work. The percentage of hepatitis observed in this survey among laboratory workers is more than twice the incidence rate of hepatitis of the general public.

Problem Areas Noted

The hospital laboratory workers noted several problem areas in particular in their survey responses. These included inadequate laboratory ventilation, improper pipetting practices, and insufficient and sloppy garbage disposal facilities.

One finding of note was that of the workers surveyed who use pipettes regularly (pipettes are strawlike devices for transferring liquids), 82 percent used their mouths for pipetting at least occasionally and nearly half had at one time or another accidentally taken in a mouthful of liquid. The hepatitis risk among these workers was nearly three times as great as among those who had never gotten liquids in their mouths. Automatic pipettes were not routinely provided or used in most hospital laboratories.

Other Health Hazards

Other health hazards most often reported by lab workers were:

- Contact with patients who have communicable diseases
- Improper procedures for blood, urine, and stool specimen collection which allow contact with specimens
- Inadequate labelling and packaging of specimens
- Inadequately functioning hoods in the lab or poor lab ventilation
- Inadequate systems for garbage collection in the lab (e.g., open containers, disposal of sharp items with discarded specimens)

Safety measures suggested by the study are illustrated on this page. Results of the survey appear in an article in the *Journal of Preventive Medicine* authored by Jeanne and Steven Stellman of the American Health Foundation and Judy Berek and Arlene Ezratty of 1199. (See page 4 for details on how to order this.)

WOHRC Interns on the Job: Lab Health Flowsheets

Health and safety checklists and flow-sheet diagrams, which can be used by workers and others as a guide to inspect their laboratories for hazards were developed by WOHRC interns Peter Bellin and Beth Askue from a survey carried out in cooperation with Long Island Jewish Hospital in New York and District 1199.

The checklists cover general working conditions such as noise, ventilation, chemical showers, etc. Safety checklists also inventory general lab procedures, such as pipetting and disposal of contaminated materials, protective clothing and employee regulations.

Flowsheets designed to follow the flow of biological samples through hospital routines from patient areas to the laboratory were also constructed. Using these flow sheets, the potential route of infection can be traced and sources of disease pinpointed and eliminated.

The flowsheets are available from the Resource Center. Write WOHRC for further information.



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Health And Safety In The Clinical Laboratory

Do's And Don'ts In The Laboratory



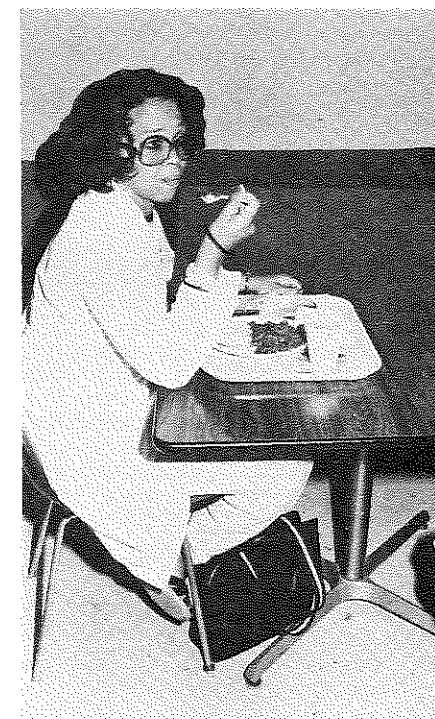
Pipetting by mouth is a major health risk factor in laboratory work. This lab worker risks exposing herself to hepatitis from infected specimens. Automatic pipettes should be used in the laboratory.



This lab worker is handling specimens which are correctly bagged, stored, and labelled. Good hospital procedure calls for the organized transport of specimens from health care areas to messengers to the lab.



This lab worker is correctly pipetting by hand and is using a test tube rack. Use of the rack decreases the chance of spreading infection from lab spills.



Lab workers should never wear their lab coats when eating in the cafeteria. While eating, this lab worker may unknowingly transfer contaminated specimens from her lab coat to her mouth.

Hepatitis Hazards In The Workplace

Viral hepatitis is a serious contagious infection of the liver. In an occupational setting it is usually contracted by contact with the blood of infected patients.

Occupationally caused hepatitis is often not recognized and in most states it is not considered a compensable disease under the Worker's Compensation Law. In New York State it is, however, and largely as a result of a lawsuit initially brought by the compensation attorney of District 1199 hospital workers union.

The Union laboratory committee was galvanized into action when four cases of hepatitis among chemistry lab workers were identified within one year and an additional 16 cases were also found among employees in the blood gases lab and in intensive care units. (A member of the committee herself also contracted the disease.)

When District 1199 brought these cases before the Compensation Courts, hospital management did not contest them and together with the precedent set in the preceding case firmly established hepatitis as a compensable illness in New York.

Safety, Not Compensation, the Goal

But safety, not just worker's compensation, was the goal of the Union, so in cooperation with hospital management the following problem areas were identified by canvassing and surveying the hospital:

- Lack of precaution in handling serum specimens
- Pipetting potentially infected samples by mouth
- Failure to sterilize glass pipettes after use
- Infrequent washing of laboratory floors
- Garbage cans overflowing with discarded specimens
- Contamination of lab sinks and fixtures during specimen disposal
- Uniforms which were difficult to remove for coffee breaks or lunch

Education and Training

The widespread occurrence of hepatitis in the laboratory can be credited to the lack of inservice training and education of workers by their supervisors. The pictures on this page are part of an ongoing training program sponsored by District 1199 to make workers themselves aware of proper laboratory health and safety procedures.