



WOHRC Update: Health in Health Care

WOMEN'S OCCUPATIONAL HEALTH RESOURCE CENTER NEWS

ETHYLENE OXIDE...

...Court orders ceiling

The Occupational Safety and Health Administration has been ordered by the U.S. Court of Appeals in Washington D.C. to stiffen the ethylene oxide, ETO, standard by adding a short-term exposure limit [STEL]. The current standard, successfully challenged by three unions and the Public Citizen Research Group, requires that exposure only be controlled to an average level of 1 part per million (1 ppm).

The STEL had been a hotly contested issue during the 1984 OSHA standards-making procedure, with many experts and groups attesting to the potentially toxic effects of short-term excursions to relatively high levels, a condition which occurs often in health care situations, such as during the transfer of sterilized materials from the ETO sterilizer unit to the aerator unit. OSHA, under pressure from the Office of Management and Budget, did not include the STEL in its final rulemaking.

The major implications of the STEL will be for workers in health care, where the predominant human exposure is thought to occur, despite the fact that health care uses of ETO represent only about 0.5% of the total production in the U.S.

The District Court refused a petition by the Association of Ethylene Oxide Users.

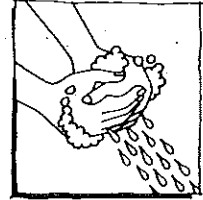
...Human cancer risks grow

The District Court ruling follows the publication of a study Swedish factory workers which has found that even at low levels of exposure, workers at the ETO producing factories were suffering from leukemia and stomach cancer rate ten times above the national Swedish rates. Eight cases of leukemia were found where only 0.8 were expected and six cases of stomach cancer were reported compared to the 0.65 cases expected for the 733 exposed workers.

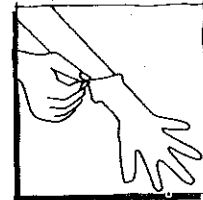
The implications of these findings for health care workers are not yet clear, however, it was estimated that some of the exposed men had worked at exposure levels close to the new OSHA standard. Cancer-causing substances are assumed to act in a dose-related fashion, that is, they have a greater effect at higher doses. The National Institute for Occupationally Safety and Health's (NIOSH) estimates of health care worker exposures place them at levels above these Swedish factory workers.

Ref: Hogstedt, C., Aringer, L. and Gustavsson, A. 'Epidemiologic support for ethylene oxide as a cancer causing agent.' JAMA(255), 1575-1578, 1986.

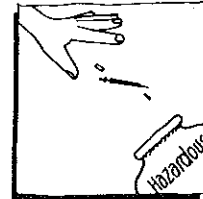
**ALWAYS
WASH HANDS**



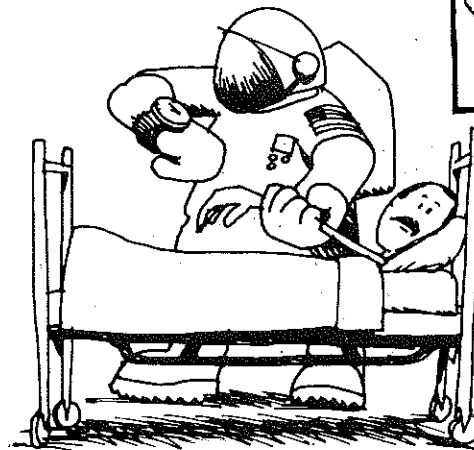
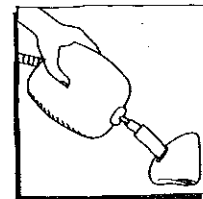
WEAR GLOVES



**DISPOSE OF
NEEDLES PROPERLY**



**KEEP AN AMBUBAG
AT BEDSIDE**



Taking more precautions than are needed makes it harder for patients to cope with their illness.

AIDS...

...New guide for workers

Fear of AIDS has reached epidemic proportions. Yet health care workers must conquer fears to provide services to AIDS patients. 'The AIDS Book: Information for Workers' is an exceptionally well-written, easy-to-read yet accurate guide on the nature of AIDS and actions needed to avoid accidental exposure to infected blood or other body fluids. Worker health and patient well-being are primary here. Published by the Service Employees International Union, it is available @\$2.50 (prepaid) from SEIU Health & Safety Dept, 1313 L Street NW, Washington DC 20005. Single copies of the brochure excerpted above are free.

...Lab data shows more harm

Two more laboratory studies of the biological effects of ETO have demonstrated effects to the reproductive capacity of male mice and of enhanced mutation (alteration of genetic materials) in hamster cell cultures. Both experiments demonstrated a dose-related response for the effects.

Groups of male mice subjected to increasing levels of ETO gas exhibited increasing dominant-lethal test effects. This test mates treated males with untreated females, sacrifices the pregnant females and counts the number of dead embryos. Many substances toxic to male reproduction will increase the number of dead embryos, as in the current report on ETO. In mice the later stages of sperm development appear to be the most susceptible to ETO.

Ref: Generoso, WM et al, ETO Dose and Dose-Rate Effects in the Mouse Dominant-Lethal Test.' Env. Mutagenesis 8, 1-7, 1986.

Hatch, G. et al, 'Mutation and Enhanced Virus Transformation of Cultured Hamster Cells by Exposure to ETO.' Env. Mutagenesis 8, 67-76, 1986.

HEPATITIS B...

...Unions seek standard

A request for an Emergency Temporary Standard, ETS, for Hepatitis B, a serious, sometimes fatal, infectious liver disease and a recognized occupational hazard for health care workers, some of whom may have an infection rate fifteen times the national average, has been submitted to OSHA by the Service Employees International Union (SEIU), the National Union of Hospital & Health Care Employees and Local Local 1199, which together represent about 450,000 health care workers. The Unions also requested OSHA to issue an immediate directive requiring employers to pay for hepatitis vaccine for high-risk workers.

A request for an ETS mandates OSHA to initiate a rule-making process and to consider promulgating the requested standard.

The issue of payment for the vaccine, which costs about \$100, is pivotal since non-professional health care workers are among the lowest paid wage-earners in the United States. Costs may thus preclude their participation in vaccination programs. The Unions maintain that OSHA already has the regulatory authority to issue such a mandate. In addition the OSHA Review Commission has upheld an OSHA citation against an employer for failure to provide free vaccine, thus establishing a precedent.

To date OSHA has only published a document suggesting ways in which to reduce risk by patient isolation, body fluid management techniques and housekeeping procedures, as well as by notification of the presence of an infected patient, among other guides.

ANTI-CANCER DRUGS...

...OSHA issues guidelines

In 1979 the first scientific report indicating the potential hazard of exposure for nurses and pharmacists who mix and/or administer anti-cancer drugs was published by a group of Finnish geneticists. Other researchers have since confirmed that finding and have demonstrated that some of these agents were absorbed by workers handling them.

Since most cancer chemotherapeutic agents are highly toxic and many can cause cancer or birth defects, several professional groups and the National Institutes of Health have issued guidelines for their safe handling. In early 1986 OSHA joined this growing group of agencies by issuing an 'OSHA Instruction PUB 8-1.1: Guidelines for Cytotoxic (Antineoplastic) Drugs.'

The OSHA instruction deal with various aspects of drug handling, including drug preparation, administration and waste disposal. They are not legal requirements but do establish work practices that should be regarded as safe. Copies of the document are available at no charge from the OSHA Area Office to members of health care facilities.

...Public interest survey

The extent to which health care institutions are in compliance with the OSHA guidelines on handling anti-neoplastic drugs will be the subject of an study by the Health Research Group, a Ralph Nader affiliate.

OSHA has not announced any plans to monitor health care facilities to determine the effectiveness of the voluntary guidelines nor is it known at this time whether the guidelines themselves have been adequately distributed to health care facilities.

The survey is now in its final stages of preparation. Participation in the survey will be voluntary.

...More worker exposure data

Scientists in France have completed an investigation in nurses of the genetic effects of handling anti-cancer drugs and have observed no significantly increased rate of abnormalities. The nurses in this study worked with a smaller number of doses than did nurses in other studies in which genetic changes had been observed. The exact nature, extent and meaning of genetic changes is not yet well-understood and such changes have not been related to specific diseases or risks as yet.

Ref: Stucker, I. et al, Int'l Arch Occup Environ Hlth 57, 195-205, 1986.

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