

The OEHS Safety Update Newsletter is distributed by
the UCSF Office of
Environmental Health and Safety.
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CONGRATULATIONS, OEHS RAFFLE DRAWING WINNERS!

On February 14, 2001, approximately 200 people attended the OEHS Safety Fair in the Millberry Union. Many people from both the campus and the hospital had the opportunity to talk to the various vendors, department representatives and share in the food, refreshment, raffle drawing and fun at the fair.

UCSF Departments represented included: Disability Management, UCPD, FM's Fire and Life Safety/Fire Extinguisher Program, OEHS, Cell Culture Facility, Campus CPR Center, Student Health's Medical Surveillance Program, and Communicable Disease Prevention Program.

Participating vendors were: Roche, Fisher Scientific, Rainin Instruments, VWR Scientific Products, Technical Safety Services, Safety Kleen, Photowaste,

NuAire, Lab Equipment Company, Workrite, Integrated Environmental Services, and ICN Pharmaceuticals.

We would like to thank everyone for coming out to the event and would like to give special thanks to the vendors for providing the great raffle prizes. Prizes included: CD Alarm Clock Radio, CD Walkman Player, CD Holder, live Maine lobsters, two \$300 VWR Gift certificates, Troy Ounce Silver Coins, Potted Mini Rose Plant, \$10-\$50 Barnes and Nobles Gift Certificates, Starbucks Coffee Gift Package/Certificates, T-shirts and other give ways.

Congratulations to the following Raffle Drawing Winners (departments listed as information was available):

- Millie Edwards
- Ana Hicho (Pharmacy)
- Mike Higman (Engineering)
- Diane Hu (Orthopedics)
- Robert Hunn (Med. Ctr. Safety Officer)

- Brian King
- Cindy Lee
- Rose Lum (Bloodbank)
- Kuo Chiang Lian (Medicine)
- Limin Hu
- You Ping He
- Vicky Kirby
- Lizette Pascal
- Britta Swanson (Anesthesiology)
- Paul Trinidad (Nursing)
- Yan Wang (Anesthesiology)
- Jeanette Wong (Anatomy)

A few others who claimed their prizes too quickly for us to record the information were not named above. All the winners have been notified of their prize.

If you are one of the winners and have not picked up your prize yet, call 476-1300 to make arrangements.

THANK YOU FOR MAKING THIS A SUCCESSFUL EVENT, & WE'LL SEE YOU AT THE NEXT SAFETY FAIR.



SAFETY UPDATE

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

NEWSLETTER

OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY

UCSF RESEARCH NEWS

MARCH / APRIL 2001

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TRANSMISSION AND CONTROL OF LABORATORY-ACQUIRED HEPATITIS INFECTION

Historically viral hepatitis has been one of the most frequently reported infections acquired by laboratory personnel employed in clinical, research, and public health laboratories. Currently there are at least 5 viruses that can cause viral hepatitis. These viruses are distinct and show no structural homology, taxonomic relationship or similarity in the means by which they replicate in the human host. Although these five viral agents are unique viral entities, the clinical diseases they cause are very similar and cannot be distinguished by clinical signs and symptoms. Specific diagnoses are based on serological tests developed over the last 30 years.

The following are brief descriptions of each of the five viral hepatitis viruses, specifically in the context of laboratory acquired infections:

Hepatitis A (HAV) – HAV is transmitted by the fecal oral route and occurs worldwide. HAV does not appear to be an occupational risk for laboratory workers, but has been shown to occur with relatively high frequency among animal handlers working in areas housing infected primates.

Hepatitis B (HBV) - HBV can cause acute hepatitis followed by disease resolution, but a percentage of these infections can result in chronic active hepatitis. HBV is responsible for most morbidity and mortality of acute and chronic liver disease worldwide. It is the most often reported laboratory-acquired infection (spread by the bloodborne route) and occurs at a high rate among lab workers who frequently handle blood or

blood contaminated fluids or items. There is an effective HBV vaccine available and lab workers and other health care workers who are at risk for HBV infection should be vaccinated.

Hepatitis C (HVC) – HVC is responsible for most cases of parenterally transmitted non-A, non-B hepatitis. The epidemiology of HCV is just beginning to be defined, but occurs worldwide. HCV is transmitted by the bloodborne route, but the efficacy of transmission appears to be less than that of HBV. Laboratory and other health care workers who frequently handle blood may be at increased risk to HVC infection but apparently not the same as HBV.

Hepatitis D (HDV) - HDV is a relatively small virus with defective RNA and causes hepatitis only in individuals with active HBV infection. HDV is a severe disease with a relatively high mortality rate as a result of acute infection and a high likelihood of development of chronic disease. Although HDV could theoretically provide for occupational transmission among workers who handle blood products, there have not been documented reports of laboratory-acquired HDV infections.

Hepatitis E (HEV) – HEV causes acute infections and is commonly referred to as "enterically transmitted non-A, non-B hepatitis." HEV infection does not lead to chronic hepatitis nor has a carrier state been described. HEV is transmitted by the fecal-oral route and is a common cause of sporadic epidemic in underdeveloped areas of the world. There

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NEW SAFETY LEGISLATION (REMINDER)

Assembly Bill 1127 authored by Assembly member Steinberg was signed into law by California Governor Gray Davis on October 6, 1999 and became effective January 1, 2000. This law eliminates the exemption for government agencies such as UCSF from paying Cal-OSHA fines for occupational safety and health violations. Fines for such violations can be substantial:

- Non-serious violations are assessed up to \$7,000 per occurrence.
- Serious violations are assessed at up to \$25,000 per occurrence.
- Willful or repeated violations are assessed between \$5,000 and \$70,000 per occurrence.
- Jail time can also be involved with certain violations.

Examples of non-serious violations include failure to provide employee training, blocked aisle ways and walkways, use of extension cords in lieu of permanent wiring, and most of all, not having a written Injury and Illness Prevention Program (IIPP). Serious violations are conditions that may cause serious employee injury or death. Examples are exposed conductors in an electrical panel, fall hazards, chemical exposure above Cal/OSHA permissible limits, or asbestos exposure during construction projects.

Last October 2000, Cal-OSHA opened an inspection at 513 Parnassus due to a laboratory indoor air quality complaint. As part of this inspection, the Cal-OSHA Compliance Officer surveyed

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ENVIRONMENTAL MANAGERS MEETING

Environmental Managers (EMs) from all the campuses met for the first time in three years in November at UC Davis. Some of the topics of discussion were the Title V federal air permit program, discharges to sewers, air toxics, Cal ARP (risk management program), SPCC (spill prevention) plan requirements, and property site assessments. The campuses have had varied experiences with these programs. Some campuses have active Certified United Program Agency (CUPA's), and local regulators often interpret the same regulations differently. It was a worthwhile sharing of experience and practices.

Maryann Jones from the State Water Resources Control Board made a presentation to the EMs about the upcoming Phase II stormwater regulations, which will require each of the campuses to come up with a management plan by March 2003. The management plan must be site-specific and explain your best management practices and your education program. Discussion on this topic was whether we should put a plan together that could apply to educational institutions or work individually with each regional board, which may have differing requirements. A subgroup of the EMs was formed to begin the discussion of a generic management plan.

NEW CONTRACTS FOR REAGENTS & CHEMICALS

UCSF Planned Purchasing has completed the bid evaluation for Research Grade Reagents and Chemicals. An evaluation team comprised of the Purchasing Department and representatives from SESAC (Scientific Equipment and Supplies Advisory Committee) performed an extensive analysis of the bidders' proposals and the University's chemical purchases.

The primary contract has been awarded to VWR Scientific and the secondary contract to Fisher Scientific. These contracts are effective June 1, 2000 through September 30, 2002.

This is a MANDATORY contract. The university receives its pricing in part because the primary supplier expects to receive 80% of the purchases through the contract. As secondary supplier, Fisher Scientific may be used only if VWR is unable to supply a product within a required time or does not carry a product.

If you need assistance in cross-referencing to VWR catalog numbers, on line ordering or any other customer service issue, please contact the VWR Sales Representative assigned to our campus at 800-873-8977 or contact Karen Roorda (Materials Management) at 502-3025. Questions can also be emailed to purchasing@mmd.ucsf.edu.

(Safety Legislation continued)

all aspects of the ventilation system including the roof top intake/exhaust system. While accessing the roof, the inspector noted a defective ladder and inadequate guardrails on the rooftop. Two citations were issued, one serious and one general with respective penalties of \$150 and \$2,700. Once an inspector is on site, he can address any violations that he notes during his walk through of the facility. The responsible department has to pay for the fines.

Please be sure that you have a written updated Injury and Illness Prevention Program (IIPP) in your department that is available to the employees. Contact your supervisor, Departmental Safety Advisor (DSA) or EH&S if you have health and safety questions or to report safety concerns. If a Cal/OSHA inspector shows up unannounced in your area, please call OEHS, 476-1300 and/or your DSA immediately to assist you with the inspection. Upon arrival, ask the inspector to wait for an OEHS person to come before beginning the inspection.

If you have a health and safety concern, call OEHS immediately and we can help you resolve your complaint. OEHS has employed several former Cal/OSHA industrial hygienists and we have better instrumentation than Cal/OSHA to take necessary air sampling or measurement. Don't hesitate to contact OEHS to report any unsafe conditions.

(Hepatitis continued)

have been no reported HEV infections associated with laboratory work.

In summary, HBV, HCV and HDV are bloodborne infections, and HAV and HEV are enterically transmitted infections. The overriding strategy for prevention and control of viral hepatitis in laboratories in the implementation of "Universal precautions." Lab workers with potential exposure to human blood or body fluids must participate in the bloodborne pathogen program. Contact the Biosafety Officer, Brynte Johnson at 476-2097 for more information. If you ever receive a puncture wound or needle stick from a contaminated instrument, please immediately call the Needlestick Hotline at 719-3898 (all UCSF sites except SFGH) or 469-4411 (SFGH).

EXPLOSION SHAKES CHEMISTRY LAB SAFETY GEAR PROTECTS STUDENT FROM SERIOUS INJURIES

An explosion sent broken glass flying throughout a sister-campus' chemistry laboratory, injuring a graduate student but serving as a reminder about the importance of wearing safety glasses.

A graduate student, who was heating laboratory glassware at the time of the blast, was taken by ambulance to the emergency room, where she was treated for numerous lacerations to her face, neck, and hands.

Resting in her on-campus residence on Friday, this student said the explosion occurred as she was heating the outer piece of a "trap," glassware that collects organic liquids that might otherwise enter a vacuum pump. "The pieces of the trap were stuck together, and I was trying to take it apart by expanding the outer piece with heat." She could only speculate that oxygen inside the trap ignited, causing the glass to explode.

While she was fuzzy about some details of the accident, she was absolutely certain about the role that safety glasses—she was wearing them at the time of the blast—played in protecting her from further injury.

"The safety glasses saved my eyesight," she said. "I really didn't think that what I was doing at the time of the accident was at all dangerous. This accident has really taught me to wear them all of the time."

The student's assessment was echoed by the campus Environmental Health & Safety's industrial hygienist, who said the incident should serve as a reminder to all about the value of protective eyewear. "The glass exploded with such

power that it actually broke a window in the room; glass shards were stuck in the ceiling. Thankfully, she had her safety glasses on."

For more information regarding personal protective equipment for your lab, contact your DSA or Environmental Health & Safety at 476-1300.

SURVEILLANCE FOR CJD ENHANCED AND EXPANDED

Since 1996, Britain has been trying to define and control the spread of a newly identified human disease with a prion strongly suspected of being the causative agent. The disease it most closely simulates is Creutzfeldt-Jakob disease (CJD), a "transmissible spongiform encephalopathy" that causes a late-onset (mean age of US patients is 68 years old) rapid brain deterioration with many symptoms similar to Alzheimer's Disease. The incubation period is not known but in most cases appears to be 20 or more years.

While there are no reported cases of CJD transmission via blood, the American Red Cross has placed restrictions on donations by people who have spent a cumulative 6 months or more in England between 1980 and 1996.

The new disease, new variant or nvCJD, manifests the symptoms much more rapidly, and can be observed in patients as young as teens. In Britain, eating beef has been implicated as the method of transmission to humans, and cooking does not inactivate the agent. It has been spread in British livestock (hence the name "Mad Cow Disease") because cattle feed has occasionally contained cattle carcass materials. NvCJD disease has never been identified in patients or livestock in the United States. In the period from 1979 to 1998, "Classic" CJD has been identified in approximately 4750 United States patients who displayed severe neurologic deterioration before death.

In order to protect both the human population of the U.S. and our livestock, both the Centers for Disease Control (CDC) and the U.S. Department of Agriculture's Animal and Plant Inspection Service (APHIS) require and issue permits to those importing animals and animal products, with particular restrictions on materials from Europe. These include biotechnology products and cellular or viral preparations that require animal products such as fetal bovine serum. If you need to import such materials, please contact the Biosafety Officer (BSO) Brynte Johnson at 476-2097 for more information.

The CDC monitors the occurrence of CJD through examination of death certificates in cooperation with state and local health departments. Also, a new facility is being developed under the direction of the CDC and the American Association of Neuropathologists. The National Prion Disease Pathology Surveillance Center has been established at Case Western Reserve University in Cleveland Ohio, and will serve as a testing laboratory for samples submitted by clinicians with patients who die from unusual neuropathic conditions.

The safety of the U.S. blood supply is also being examined. While there are no reported cases of CJD transmission via blood, the American Red Cross has placed restrictions on donations by people who have spent a cumulative 6 months or more in England between 1980 and 1996. Similar restrictions exist in Australia, New Zealand and Canada. The CDC is conducting a study to determine if human to human transmission can occur via blood or blood products.

While acquiring the diseases appears difficult, researchers working with prions must follow special procedures and take special precautions due to the severity of CJD once infected and the current absence of any treatment or cure. If you are considering working with prions, please contact the BSO for more information. If you want more general information on CJD or either national or international surveillance efforts, visit the CDC's website at: <http://www.cdc.gov/ncidod/diseases/cjd/cjd.htm>

NEED OR WANT TO GET RID OF LAB CHEMICALS OR SUPPLIES?

Check out the Laboratory Chemical & Supply Surplus Exchange (LCSSE) Program Website at www.ors.ucsf.edu or find a direct link to the program from the OEHS Website at www.ehs.ucsf.edu. You can post information on the on-line posting board excess items you may have as well as search for items you need. From the website:

- Select the category you are interested in from the pulldown menu.
- Another screen will appear with an identical pulldown menu, in which you select "Submission Forms".
- Complete the form and submit it directly on line.
- It will be sent to the OEHS Webmaster who will post the ad on the board within 24 hours upon receipt. You will receive a confirmation and the opportunity to make any changes to the form at the time of completion and via the email.

We will continue to refine and update the website as necessary. If you have any questions or suggestions about the program, feel free to send an email to webmstr@ehs.ucsf.edu or call 476-1300.

PLEASE HAVE ALL PERSONNEL
IN YOUR LAB INITIAL HERE AS
EVIDENCE OF CONTINUING
EDUCATION & KEEP THIS
NEWSLETTER IN YOUR LOGBOOK.

