



The OEHS&S Safety Update Newsletter is distributed by the UCSF Office of Environmental Health and Safety. Please send comments to OEHS&S Safety Update Newsletter, Box # 0942 476-1300 editor@ehs.ucsf.edu

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Environmental Health and Safety #717
50 Medical Center Way
San Francisco, California 94143

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

Check out the Chemical & Supply Surplus Exchange (LCSSE) Program Website at www.ors.ucsf.edu or find a direct link to the program from the OEHS&S Website at www.ehs.ucsf.edu. You can post information on the on-line posting board about 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&S 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. ≈

SAFETY UPDATE NEWSLETTER

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY

UCSF RESEARCH NEWS

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HOW TO SEGREGATE MEDICAL WASTES

Due to changes in requirements from our new medical waste disposal company, UCSF clinical and research staff have had to change the way they accumulate and dispose of medical waste. Previously all medical waste from UCSF was incinerated as it made no economic sense not to.

However, due to recent steep price increases, in order to keep UCSF's expenses as low as possible, lab and clinical staff must accumulate potentially hazardous medical waste into two categories: that which must be incinerated; and that which can be autoclaved and shredded - which is done by the waste disposal company. Bulk autoclaving is considerably cheaper than incineration, but cannot be used for every contaminated material.

This change has led to some confusion as to what materials belong to each category, how these should be kept separate, and why. The following information will help answer questions about the new process.

There are three biohazardous "waste streams" or ways biological waste leaves this campus, that are pertinent to medical waste. The first is called either "infec-

tious" or "pathological" ("path" for short) waste. This waste is the most hazardous, and required by social convention or by law to be incinerated. The second is called "medical waste", waste that is less hazardous or has no social or legal requirements that require incineration. The third is "regular trash". Examples of biohazardous or research-source biological materials that fit into each of these categories are summarized in tables A, B, and C.

PATHOLOGICAL WASTES (see Table A) must be sterilized by incineration, which is a much more expensive way to dispose of waste. Pathological waste is collected in red and *only red* biohazard bags that are placed inside of red, square-shaped barrels clearly labeled "Pathological Waste".

A laboratory may have smaller bench top or workstation containers, but they must be red and they must be clearly labeled "For Pathological Waste Use Only". Excess bag material may not obscure the label. Under no circumstances use cardboard "Burn-up Bins". These are not leakproof, do not have tightly fitted lids, and therefore are not acceptable for medical

(Continued on page 2, see Medical Waste)

WEST NILE VIRUS - UPDATE



As reported earlier, the West Nile Virus (WNV) is a mosquito borne-virus that has been found in parts of Asia, Eastern Europe, Africa, and the Middle East. It reached this continent in 1999 in New York City. Currently this disease is spreading outward, making its way across the United States including 43 states by last year. Most North Americans do not have immunity.

At this time, in the United States, 10,565 people have been infected with 284 deaths recorded. WNV has now spread to California. Currently there have been four deaths recorded due to the virus. By comparison, the SARS disease recorded 8096 cases and 774 deaths worldwide in the same time period.

SYMPTOMS.

Most people who are infected have no symptoms. However, for those who become ill, symptoms can include fever, headache, nau-

(Continued on page 3, see WNV)

(Medical Waste continued)

waste accumulation in California.

MEDICAL WASTE (see Table B) is collected by the medical waste disposal company and taken to centralized bulk autoclave facilities where the waste is sterilized, shredded, and subsequently taken to landfill. Regular medical waste is collected in red and only red bags that are placed inside large round gray barrels. A laboratory may have smaller bench top or workstation containers. They should not be red and they must be clearly labeled “For Regular Medical Waste Use Only – NO PATH WASTE”. Excess bag material may not obscure the label.

Under no circumstances use cardboard “Burn-up Bins”. These are not leakproof, do not have tightly fitted lids, and therefore are not acceptable for medical waste accumulation in California.

REGULAR TRASH category can be used for medical wastes under certain very limited and carefully defined circumstances. (See Table C) If BSL-1 materials will generate unpleasant odors while waiting to be discarded by the custodians, seal them in transparent or translucent colorless or white plastic bags.

If you have any doubt when deciding which of two categories a material should belong to, put it in the waste stream with the higher level of certainty that the waste will be destroyed. Path waste has a higher certainty of being destroyed than medical waste, which has a higher certainty than regular trash.

If you need additional help or information, contact your Department Safety Advisor (DSA). ≈

TABLE A

INFECTIOUS (PATHOLOGICAL) WASTE	
Material	Description
Agents associated with Human Disease	Any lab items being discarded that are contaminated with any infectious agent that causes disease in humans
BL3 Waste	All waste from Biosafety Level 3 or Animal Biosafety Level 3 facilities
Prions	All wastes known or reasonable suspected of being infected with prions of any species.
Human Tissue > 1 cubic inch	Any human tissue or body part that is one inch or 2cm cubed or greater, or recognizable as being of human origin by looking at it.
Isolation Waste	Isolation wastes from clinical areas.
Animal Tissue > 1 inch cubed	All fixed or unfixed recognizable animal carcasses regardless of size, and any animal tissue or body part that is one inch or 2cm cubed or greater, or easily recognized as of animal origin by looking at it.
Animal Bedding	Animal bedding and other husbandry materials known to be or suspected of being contaminated with any infectious agent that causes disease in humans.
PPE and Lab Material Contaminated with Pathological Materials	Disposable PPE and other laboratory materials used in conjunction with the above items.

TABLE B

REGULAR MEDICAL WASTE	
Materials	Description
Human Cell Cultures	Any lab items being discarded that are known or suspected to be contaminated with human cell cultures, even if not known to be pathogenic to humans.
Animal Pathogens	Any lab items being discarded that are known or suspected to be contaminated with animal pathogens, even if not known to be pathogenic to humans.
Recombinant Materials	All Risk group 2 recombinant materials (vectors, infected host cells or tissues)
Liquid Blood or Body Fluids	Liquid blood or body fluids or their containers.
Human Tissue < 1 cubic inch	Any human tissue or body part that is less than one inch or 2cm cubed.
Vaccines	All animal or human vaccines or their containers.
Sharps	Sharps containers not required to be discarded as pathological waste.
Animal Bedding	Animal bedding and other husbandry materials known or suspected of being contaminated with any infectious agent that causes disease in animals.
PPE and Lab Material Contaminated with Pathological Materials	Disposable PPE and other laboratory materials used in conjunction with the above items.

TABLE C

REGULAR TRASH	
Materials	Description
Autoclave Medical Waste	Regular medical wastes contained in approved red biohazard autoclave bags that have ONLY been sterilized in an autoclave certified by the UCSF Office of Environmental Health and Safety and identified as such by a colored outaclave registration tag for the current year.
Bleached Liquid Blood or Body Fluids	Small containers of fluid blood or body fluids in which the blood or body fluid has been disinfected with undiluted commercial bleach for 30 minutes. Disinfection is done by adding bleach to a final bleach dilution of 10:1 with the fluid. Higher concentrations of bleach are OK, lower are not. After 30 minutes of contact time, the disinfected blood may be washed down a laboratory sink drain. Rinse the container and run cold tap water for 10 seconds to flush the liquid through the sink's trap. Deface any hazard or patient labeling and discard the container in the regular trash.
Dried Blood or Dried Fluids.	Materials containing dried human blood or body fluids not known or not suspected of containing human or animal infectious agents.
Non-infectious recombinant DNA materials (BSL-1)	Culture plates, viral stocks, vectors, plasmids, and other recombinant materials NOT ABLE TO INFECT OR OTHERWISE BE HAZARDOUS TO HUMANS. All BSL-1 wastes fit this category.

(WNV continued)

sea, body aches, mild skin rash, or swollen lymph nodes. In a few cases, the disease will progress to encephalitis, (inflammation of the brain). The elderly are particularly susceptible. Typically, the incubation period for humans is anywhere from 5 to 15 days (the time between the mosquito bite and the onset of the illness).

INFECTIVITY.

Wild birds and horses are most susceptible to WNV. Among the wild birds crows, jays, ravens, and magpies are included.



(American Crow)

WNV is transmitted to people and animals by infected mosquitoes. A mosquito first acquires the infection by feeding on a bird with virus in its blood. The virus lives in the mosquito and is transmitted to a new host in the mosquito's saliva when the insect bites a person or animal. The virus is most prevalent from May to October when mosquitoes are most abundant.

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

WNV PREVENTION AND CONTROL.

To decrease exposure to mosquitoes and the infections they may carry:

- Avoid spending time outside when mosquitoes are most active, especially dawn and dusk.
- When outdoors cover yourself up as much as possible, wearing long pants, long sleeved shirt, etc.
- Apply insect repellents. The repellent should contain DEET.
- Make sure that doors and windows have tight-fitting screens with no tears and holes.
- Eliminate all sources of standing water that can support mosquito breeding. Mosquitoes breed wherever there is standing water such as puddles, ditches, and containers. A small amount of water can hatch thousands of mosquitoes within one week.
- If the mosquito problem is on campus, contact UCSF, Office of Environmental Health & Safety at 476-1300.
- If you see a dead crow, jay, raven or magpie, you should notify OEH&S immediately, since the California Department of Health Services (DHS) may like to test the bird for the virus. Do not touch the bird yourself.

SFDPH.

The SFDPH has alerted and mobilized all entities within its boundaries (e.g., Public Works, Cal/Trans, the Presidio, National Park Service, the zoo, and all campuses, including UCSF) to look for the presence of WNV. The purpose is to elicit their cooperation by establishing and implementing a mosquito inspection, prevention, and abatement program.

THE MOSQUITO ABATEMENT PROGRAM AT UCSF.

The Office of Environmental Health and Safety and Facilities Management (FM) have implemented a mosquito prevention and abatement program to protect campus personnel. This program includes scheduled inspections for standing water in empty containers and possible breeding grounds even in remote campus locations such as the old Nike site near the top of the campus. If you observe standing water anywhere on campus, FM will arrange for its clean up or removal. They will also hire a pest control service if needed.

THE LOCAL OUTLOOK.

West Nile Virus is in California now, and has marched northward. The number of people and animals infected should not reach proportionally high numbers in San Francisco because of the mild climate in this city. However, dead birds infected by the virus have already been found in nearby Alameda and Contra Costa counties. It is appropriate that we cooperate and do our best to minimize the spread of this disease.

ADDITIONAL INFORMATION.

Can be obtained by checking out the websites:
<http://www.westnile.ca.gov>
<http://www.cdc.gov/ncidod/dvbid/westnile>. ≈

WEST NILE VIRUS TRANSMISSION CYCLE

