Households in danger from mercury in everyday products

Almost every home contains hazardous products that can harm human health or the environment if improperly handled. Each year, around the world, thousands of people are injured by exposure to or accidents involving hazardous household products.

Mercury is one such hazardous substance which is found in various products in every household. Mercury is used in thermometers, medical instruments, fluorescent lamps, batteries, paint, disinfectants, antisepsics, diuretics and preservatives, electrical thermostats and switches. If mishandled, these items can release mercury into your home, sometimes in the form of an invisible poisonous vapour.

This danger is particularly relevant to Indian households because, while internationally, there is a shift towards mercury-free alternatives and strict regulations are in place on mercury emissions, India has not moved far on this front.

A human can be exposed to mercury via all three routes of exposure: inhalation, ingestion and dermal. The most likely routes of exposure are inhalation of inorganic mercury vapour after a spill or during a manufacturing process or ingestion of methylmercury from contaminated fish. The foetus of a mother who eats contaminated fish can be exposed to methylmercury via the mother’s blood and the infant can be exposed by ingestion of breast milk.

The most common effects of mercury exposure are manifested in the Central Nervous System. Mercury affects the human brain, spinal cord, kidneys and liver. High exposure may cause vision, speech and hearing impairment, respiratory problems, nervous system problems and possibly even death. Mercury accumulates in the kidneys, erythrocytes, bone marrow, liver, spleen, lungs, skin and hair. Young children and Iocutases are at the greatest risk because their nervous systems are still developing.

Toxics Link conducted a survey in Santa Vihar colony of Delhi during December 2004. The study was undertaken to assess mercury awareness among the residents, thermometer usage patterns, and breakage and disposal patterns in households. Among the 100 households covered in the survey, 86 use mercury thermometers. The study showed that awareness among the residents about mercury is very low. Unaware of the hazardous nature of mercury, they pay little attention to the handling and disposal of mercury in case of spills. The spilled mercury is usually collected using cotton, paper, a broom or a mop, and the collected mercury disposed of along with the general household waste, or even flushed down the drain. These are actions which are bound to lead to the entry of mercury into the food chain.

Awareness regarding alternative equipment is also very low. Only about 26 per cent are using any alternatives (some people were found to have both mercury and non-mercury equipment). Besides the lack of information, the high cost of digital thermometers is one of the main issues behind people not opting for them.

What you can do

- Opt for non-mercury products wherever possible
- When using mercury products, be careful. In case of a spill, use the proper handling and disposal procedure.
- Recycle the products wherever possible.
INDIA FILE

AP clinics violate waste disposal regulations

About 50 per cent of private hospitals in Andhra Pradesh (AP) are not disposing of bio-medical waste in accordance with the norms of the AP State Pollution Control Board (APSPCB). The situation is worst in the districts as a majority of clinics do not follow healthy waste disposal practices. The private clinics claim that non-compliance of bio-medical waste disposal norms by them would not cause any harm to environment, as the waste generated by them is less. "But even a small quantity of bio-medical waste can cause infection," says Dr K.V. Ramani, Joint Chief Environment Scientist, APSPCB.

Addressing a conference, Dr Ramani said that several hospitals were openly burning the waste in violation of norms. In Hyderabad, 80 to 90 hospitals were not complying with the APSPCB norms. Some corporate hospitals were also among the list of violators.

The New Indian Express, January 25, 2005

LNJP Hospital in Delhi selling waste to junk dealers without sterilisation

SHOWING UTTER DISREGARD to bio-medical waste management rules, the Lok Nayak Jai Prakash Narayan Hospital in New Delhi is selling used and condemned surgical gowns and bed sheets to a junk dealer without sterilising them. These garments and bed sheets have been used in operation theatres and wards. At least 200 kg of these materials are sold off to a junk dealer in Paharganj without any sort of treatment, in spite of having an autoclave in place. These clothes are being sold at Rs 1.50 per kg. A closer look at these clothes would confirm that they not even been laundered before being packed off. The stains of blood and pus can be seen embedded in these clothes.

Anything which is infectious or which is contaminated with body fluids is counted as bio-medical waste. Most diseases spread through body fluids, so maximum care has to be taken in handling such materials. The standard procedure would be to autoclave the items, so as to ensure that they are disinfected when sold.

The Statesman, February 16, 2005

Centre for safe injections established

Programme for Appropriate Technology in Health (PATH), in collaboration with Nizam's Hospital, has established a centre in Hyderabad where safe injections can be given, as well as demonstrated to others who give injections. The centre, which was inaugurated by cricketer V.V.S. Laxman, caters to the private and public sector. It is expected to build awareness about safe injections among professionals, private practitioners, and medical, nursing and paramedical students.

The centre addresses all three components of injection safety - safe to the recipient, the health staff and the community - by using new sterile syringes, and following safe injection and disposal practices.

WHO estimates that more than 16 billion injections are administered worldwide each year, of which 4 billion are given in India. A recent study states that two out of three injections given are unsafe. Unsafe injections have the potential to transmit viral infections such as Hepatitis B, C, and HIV/AIDS.

Source: Dr Satish B Kargyavan, Project Coordinator, PATH

Docs take anti-AIDS drugs, but keep mum

For from breaking the silence on AIDS, some medical practitioners are shying away from disclosing that they are taking drugs for prevention of HIV/AIDS. The treatment, called post-prophylaxis, is taken after an injury during an emergency surgery. Though some doctors are unaware of the post-prophylaxis treatment for prevention of HIV/AIDS, many take it as a precautionary measure after they sustain an injury or a cut during surgery.

In case of a deep cut or injury, medical personnel are advised to consurne the retro-viral drug. The side effects of these drugs may be minimal but they cannot be ruled out. A needle prick or a cut during surgery or suture can lead to the doctor getting infected with HIV or hepatitis, so such surgeons have to take post-prophylaxis treatment. During any surgery - be it heart, spinal or ortho - all efforts are made to save the life of the patient and the risk factor facing doctors is usually sidelined, said Dr Mahesh Joshi, Head of the Emergency Department at Apollo Hospital. Many doctors at government hospitals need to take more precautions, considering the reduced availability of equipment and the generally lower hygienic standards.

By P. Lazmi, Times News Network, January 11, 2005

Srihiti Medwaste Update No 8/2
Drugs bonfire sends bottle pieces flying

Motorists and pedestrians sleeping on the Perungudi-Pallikaranai Bypass Road were a little alarmed when missiles in the shape of bottles started landing on the road.

On investigation, it was found that some persons in a van laden with medicines (whose validity period had expired) had dumped the drugs and materials in the marsh, near a spot where a culvert was being built. They then poured fuel on the pile and ignited it. On information, the Fire and Rescue Service personnel put out the fire in about 15 minutes.

A team from the Tamil Nadu Pollution Control Board, headed by Kamaraj, District Environment Engineer, arrived at the spot and collected samples from the burnt medicines and gave assurances that they would initiate action against the violators.

Bird watchers and ornithologists, who visit the Pallikaranai marsh regularly, said that the incident was nothing new. Normally, truckloads of chemical waste are brought and dumped into the marsh after dark.

From the time the Corporation began using the marsh as a dump, many industries have followed suit and have started dumping waste in the marsh.

Nature lovers and bird watchers have been demanding that the marsh be declared a protected area. They have been urging the Corporation to find an alternative site for dumping garbage from south Chennai. Hopefully this incident should galvanise the Corporation into taking some steps to ensure the safety of the marsh.

By P. Oppili
www.hindu.com

WORLD NEWS

US STATE DENIES PERMIT TO INCINERATOR

Environmental officials in the US state of Michigan have denied a new permit application for the state's only medical waste incinerator, and have begun procedures to shut down the controversial facility. The Michigan Department of Environmental Quality (DEQ) on January 24 denied a permit application from Michigan Waste Services, which operates a medical waste incinerator in Hamtramck, Michigan.

The DEQ's letter of denial faulted the company's environmental history. The DEQ said Michigan Waste Services failed to implement a mercury waste reduction plan, failed to perform required preventive maintenance activities, and failed to complete maintenance records.

The incinerator currently is not operating, but waste is being processed in an on-site autoclave.

NICUS IN SWEDEN PHASING OUT PVC FEEDING TUBING

All hospitals in Sweden have abandoned PVC feeding tubing for long-term use in neonatal intensive care units (NICUs), and only four still use feeding tubes containing DEHP for short-term use, finds a recent study by the Swedish Society of Nature Conservation and HCWH. The recently-fi-

INTERACTIVE

Training manual on bio-medical waste management

A conversation with the author

Q. What is the objective of this training manual?

This manual has been compiled with the objective of providing information to people who train. Information and experience gathered by us over the last few years has been put together and is being made available to people who conduct training programmes. Over the years, training became the focal area of Srishti’s work. We learnt from each of these training sessions, and through the process of answering queries or responding to a particular problem, our understanding of the issue increased. This manual is therefore a reflection of our learning.

Q. How does one use this resource?

The training manual has seven sections, each of which talks about a particular issue. Each section has slides on a particular topic. Most of the points on the slide are self-explanatory, but some of them, which may need explanation, have accompanying descriptive notes in the manual. The CD also has photographs, which act as a visual aid to exemplify the points made during the presentation.

Q. What is the intended usage of the manual?

A: The manual can be used by groups involved in spreading awareness on the issue - hospitals, NGOs, government departments etc.

Q: How important do you think training is and what needs to be done in this front?

Training and awareness-building are the most critical component of a successful waste management programme. The government needs to pitch in and get a standard module out, which can then be incorporated in the training programmes of State health departments. At the same time, the medical and para-medical curricula need to be revised to incorporate chapters on bio-medical waste management.

Through these efforts, the country can move towards safe waste management practices in the healthcare sector.

(Arun Agrawal is the Programme Coordinator of Toxics Link’s Toxics Free Healthcare programme, and is the author of the recently released training manual for trainers - see back page for details.)

Srishti Medwaste Update No 8/2
nalised Risk Assessment on DEHP concludes that there is significant risk from using DEHP, especially for certain high-risk patient groups, including children and neonates. The phthalate DEHP is primarily used for softening PVC plastics, and has been classified as a reproductive toxicant. ▲

The Stethoscope. January 2005

UNACCOUNTED-FOR MEDICAL WASTE CAUSES CONCERN

Nearly half of all the healthcare waste in South Africa’s KwaZulu Natal province cannot be accounted for, which suggests it is being illegally dumped, burned or burnt – threatening the health of the province’s people and the environment.

This is according to a recent paper presented by Llwellyn Leonard, waste project coordinator at human rights and environmental organisation groundWork. The paper puts the figure for illegally disposed-of medical waste at 45 per cent. But provincial health authorities have refused this, saying there was no major dumping problem.

groundWork, based in Pietermaritzburg in South Africa, is embroiled in a legal battle with the state and with Compass Waste, a contractor appointed to remove medical waste.

The disposal of medical waste is also a problem elsewhere in the country. Recently, the Cape Town Municipality gave a medical waste disposal company 24 hours to remove amputated body parts and foetuses that had been piling up outside the company’s warehouse.

The Western Cape is also drafting a Bill (Western Cape Healthcare Waste Management Draft Bill) to tackle dumping of waste and address the health risks by linking the fragmented laws governing waste disposal. ▲

By Neelene Barbeau

EVENTS

WHO AND IGNOU PLAN SIX-MONTH PROGRAMME IN HEALTHCARE WASTE MANAGEMENT

WHO and IGNOU organized a two-day workshop to introduce a new six-month Certificate Programme in Healthcare Waste Management and identify study centres for it. The two-day workshop was held in Ramiah Medical College and also included a field visit to Command Hospital, Bangalore.

A joint effort of IGNOU and WHO-SEARO, the programme will cater to healthcare professionals in South-east Asian Region (SEAR) countries. It is scheduled to be launched in July 2005. During the programme, the participants will be attached to the study centres for six days for practical demonstration and theory counseling. ▲

For details, contact Prof A.K. Agarwal, Director - SOHS, IGNOU, Maiden Geri, Delhi

HuMAN AFFAIRS

You or your organisation can be a part of the Health & Us – Medwaste Action Network (HuMAN) by becoming an Active Member (involved with HuMAN on a regular basis) or a Member in Principle (no active participation but endorsing HuMAN principles).

Contact us at the Delhi address given alongside, and provide us with the following information:

1. Name
2. Occupation and designation
3. Address, phone, fax and e-mail
4. Past experience of / interest in medical waste

Once we have this information, we will send you more details on membership.

Srishti Medwaste Update No 8/2