



## Bio-medical sharps waste: A prickly issue

### New WHO-SEARO Report: Safe Management of bio-medical sharps waste in India: A report on alternative treatment and non-burn disposal practices

The World Health Organization has recently documented 13 healthcare locations which have successfully implemented sharps management programmes. In the backdrop of the introduction of auto-disable syringes in the immunisation programme, there is a pressing need to learn from such practices.

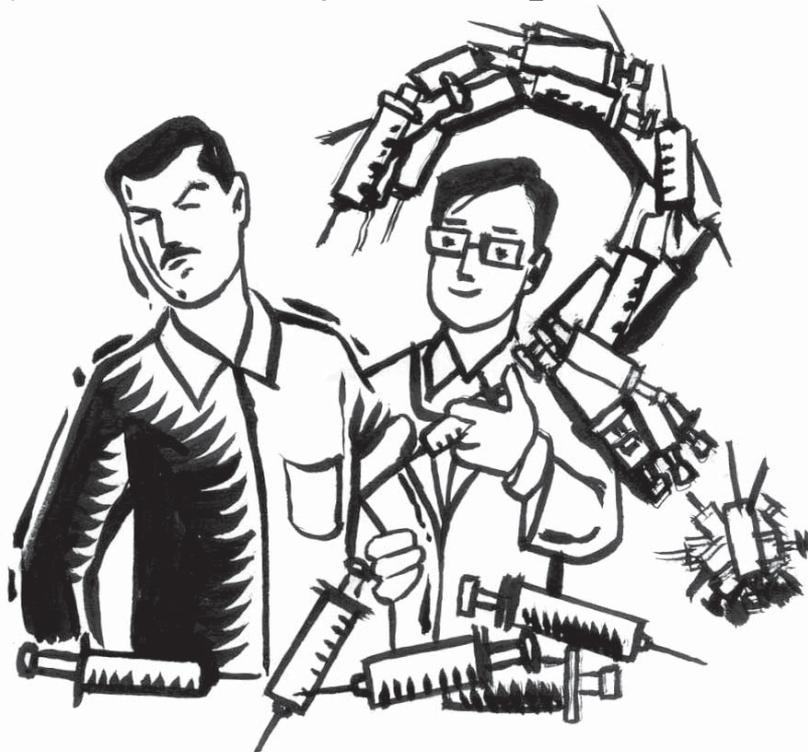
The study also evaluates alternative methods of disposal including needle cutters, chemical disinfection, autoclaving, microwaving, advanced autoclave like hydroclave, cement encapsulation and disposal in sharps pit.

The study evaluates the coherence of these technologies with the current regulatory healthcare waste management

(HCWM) framework in India. The study analyses the implications linked to the use of auto-disable syringes and the possibilities of re-processing the decontaminated shredded plastic utensils of these syringes.

The findings of the study indicate that it is of paramount importance to contain infectious sharps in puncture-resistant containers, as well as disinfect and mutilate them at the point of generation to ensure the safety of the healthcare workers and the community at large.

Currently, the methods used for final disposal of sharps were not found to be sustainable. The full report can be downloaded at: [http://w3.who.org/en/Section23\\_10305.htm](http://w3.who.org/en/Section23_10305.htm) ▲



#### Some findings of the study

▲ Most healthcare workers felt that the use of simple devices like needle cutters and destroyers for mutilation of sharps were important. These devices are used in nearly 70 per cent of the institutions covered in the study.

▲ In the present study, all the healthcare facilities provided puncture-resistant containers for storing sharps at the point of generation.

▲ Transportation of sharps should be in secure, closed containers. This was being followed only by one healthcare facility covered in the study.

▲ Healthcare workers should be provided with proper protective gear while handling sharps. In the present study, protective gear was provided in all healthcare facilities.

▲ Currently, only 40 per cent of the institutions had an accident reporting format and post-prophylaxis measures in place.

▲ Chemical disinfection of infectious plastics at the point of generation or at a central location was practiced by 93 per cent of the institutions covered in the study. There was, however, no check on the quality of the chemicals used.

▲ Autoclaving of infectious plastics and sharps waste was followed in 40 per cent of the institutions covered.

## INDIA FILE

### Cleanliness procedures of medium and small hospitals are flawed

A survey commissioned by JohnsonDiversey India Private Limited, manufacturers of cleaning and hygiene products, and conducted by Hansa Research in 150 medium- and small-sized hospitals and nursing homes in Mumbai and Delhi reveals that most hospitals use faulty tools and methods of cleaning, whether it is mopping the floors, washing stains or cleaning dishes. The survey, conducted over a span of six months, had chosen healthcare institutes between 20 to 100 beds in size.

Abhay Desai, marketing head at JohnsonDiversey, says, "We found that cleanliness is very loosely defined in most Indian hospitals and the methods used by them leave a lot to be desired." The frequency of cleaning general wards was found to be lower than that of ICUs and OTs because of the belief that general wards are less prone to infection. The study found that most hospitals used a mop repeatedly to clean various rooms. "While the liquid solution is changed, one mop is used for days together, without

being cleaned," informs Desai. Only 70 per cent of hospitals use chemicals to clean the floor; the rest use detergents. Ceilings are mainly cleaned by dusting.

Removing 'stains' and 'patches' are the key measures for cleanliness. "Hospitals use bleach for removing stains, whether of blood, urine or other fluids. Ideally, bleach is not to be used indiscriminately, as it damages the linen," adds Desai. The average life of linen in hospitals was found to be six months.

"Cleaning is a scientific process, where different techniques should be used for different types of stains. For instance, a blood stain should be removed by a right blend of detergent, emulsifier and bleaching agent," says Desai.

The study pointed to the presence of hand dryers in washrooms of hospitals, which provides a breeding ground for germs. Experts underline the need for chalking guidelines on cleanliness, supplemented with charts and diagrams for small- and medium-sized institutes. ▲

Source: Rita Dutta, Indian Express, Mumbai

### Chandigarh PGI dumping waste

A truck belonging to Chandigarh's Postgraduate Institute of Medical Education and Research (PGI) was impounded by a Municipal Corporation team for dumping bio-medical waste at a dumping ground in violation of bio-medical waste norms.

The Corporation team, led by the Joint Commissioner, was inspecting the dumping ground at the time. The team caught the truck driver and impounded the truck immediately. ▲

Source: The Tribune News Service

### Certificate programme in healthcare waste management

Indira Gandhi National Open University (IGNOU), in collaboration with WHO-SEARO, has launched a six-month Certificate Programme in Healthcare Waste Management (CHCWM) in South-east Asia Region Countries.

The course will be available through various study centres across India and partner institutions in other countries. Health managers, doctors, nurses, paramedics and others who have completed the 10+2 qualification can join by paying the course fee of Rs 2,000.

The student handbook and prospectus can be obtained from IGNOU regional centres or at the IGNOU headquarters in Delhi.

The prospectus can also be downloaded from the IGNOU website: <http://www.ignou.ac.in>

For any further information you may get in touch with Professor A.K. Agarwal, School of Health Sciences, IGNOU, Maidan Garhi, New Delhi 110 068. Tel: 011-29533078, E-mail: [akagarwal@ignou.ac.in](mailto:akagarwal@ignou.ac.in) ▲

### India pledges to fight healthcare-related infections

India has pledged to fight the spread of healthcare-associated infections, which affect millions of patients worldwide.

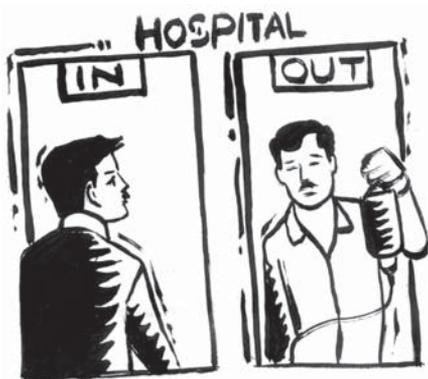
Prasanna Hota, Secretary, Health and Family Welfare, Government of India, delivered this pledge at an international video conference organised by the World Health Organization (WHO) to launch the Global Patient Safety Challenge with the theme, 'Clean Care is Safer Care'. Hota also highlighted India's achievements and challenges in the various areas of patient safety.

Ensuring the safety of patients in hospitals and healthcare institutes is an area of increasing global concern. According to a recent publication of the Global Patient Safety Challenge, more than 1.4 million people worldwide become seriously ill at any given time from

patient-care acquired infections. Between 5 to 10 per cent of the patients admitted to hospitals in developed countries acquire these infections, the report says. In some developing countries, the proportion of patients affected can exceed 25 per cent.

The Global Patient Safety Challenge, a core programme of the World Alliance for Patient Safety, brings together ongoing efforts in the areas of blood safety, injection and immunisation safety, safer clinical practices, safe water and sanitation, including safe healthcare waste management.

An advanced draft of the WHO Guidelines on Hand Hygiene in Health Care was also made available during the launch. The guidelines include simple measures to prevent the spread of infections. ▲



## WORLD NEWS

### STRICT MONITORING OF HOSPITAL WASTE URGED

Secretary of the Department of Environment and Natural Resources (DENR), Michael Defensor has admitted that 11 tonnes of medical waste from Metro Manila's hospitals are being illegally dumped every day into rivers and open dumps.

Speaking before the Global Day of Action rally at the DENR, Merci Ferrer, Coordinator of the NGO Health Care Without Harm, expressed alarm that such a huge amount of hazardous waste is escaping the attention of Metro Manila's health personnel.

Left untreated and improperly disposed, medical waste poses a major threat to public health, as the waste may be carrying pathogens that can spread diseases among the people.

The Asian Development Bank estimates that of the 47 tonnes of waste being generated daily by Metro Manila's hospitals, 27 tonnes are infectious or potentially infectious. Under the Clean Air Act of 1999, the country's hospitals are expressly prohibited from incinerating their waste and are instead required to disinfect it prior to final disposal in a landfill.

Most Manila hospitals are, in fact, privately contracting their waste disposal to facilities that provide microwave and autoclave treatment.

In July 2005, the DENR and the DoH had signed a joint administrative order outlining the responsibilities of each department and requiring hospitals to come up with a waste management plan as a requirement for hospital licensure. ▲

### GLOBAL DAY OF ACTION AGAINST WASTE INCINERATION

Citizens from more than 50 countries marked the Global Day of Action against Waste and Incineration on September 7, with a resounding plea for innovative and ecological solutions to the problem.

Over 200 citizens' coalitions and groups organised public information activities, community dialogues and peaceful assemblies, or meeting government officials on vital waste issues. In place of health-damaging dumps, landfills and incinerators, they urged governments to implement policies that would prevent waste at source, reduce and eliminate toxics, extend producer responsibility, promote sustainable consumption, intensify recycling and composting, uphold environmental justice, create jobs, and build and support clean, safe, healthy, self-reliant and vibrant communities.

Manny Calanzo, Philippine-based Co-Coordinator of Global Alliance for Incinerator Alternatives (GAIA) said, "Reducing wastes and toxics must be a top priority, locally and globally, if we are to restore the health of our frail planet and all its peoples. Promoting sustainable alternatives to waste incineration will have far ranging environmental health benefits, from protecting mother's milk from toxic contamination to reducing global warming greenhouse gases."

This international campaign, now in its fourth year, is coordinated by GAIA, a non-profit network of public interest groups and individuals working together for waste solutions.

Whether it is mass-burn, pyrolysis, gasification, plasma-arc, or 'waste-to-energy',

## INTERACTIVE

### WHO introduces a policy on mercury in healthcare

In conversation with Alexander Von Hildebrand about the new WHO policy on mercury

**Q. How will the World Health Organization (WHO) make this policy implementable in countries?**

The policy will be disseminated widely. There would be a thrust to streamline this policy into all related WHO guidance to countries. Countries, which are in a stage of developing national policies, would keep this policy in mind so as to meet its objective as well.

The policy goes beyond public healthcare, and depends on a country's governmental systems, such as the Ministry of Health, Ministry of Welfare, and the municipalities, as they have an important role to play.

Emergency aid agencies are being made aware of this WHO policy so that they no longer prioritise mercury-containing devices, when countries are hit by natural disasters.

The policy should be translated into a simpler form and promoted through medical associations and civil society organisations.

**Q. What do you see as the biggest obstacle in phasing out mercury from healthcare in the region?**

The policy keeps an eye on the practicality of implementation. We are aware that many healthcare settings do not even have a thermo-

meter. For those who have, replacement is a major challenge. The policy suggests a gradual phase-wise removal of mercury.

Disposal of the replaced mercury needs careful guidance. This does not find mention in the policy; for this we are working closely with the Basel Convention.

**Q. Are there any initiatives taken by countries in the region?**

Maldives, in the wake of finalising its national strategy for sound healthcare waste management, has decided to strictly control the import of mercury-containing medical devices and envisage to fully replace mercury thermometers by digital ones in the next two years.

India has also done work on this front. The usage of mercury in healthcare is documented in a report done by Toxics Link which highlights the way the metal is managed by workers and the lack of awareness regarding it. Various institutes have phased out its usage and the government has issued public notices on the subject.

By issuing this policy paper, WHO is starting at home and wants to be part of the solution and no longer contribute to the problem.

*(Alexander Von Hildebrand is the Environmental Health Advisor with the SEAR office of World Health Organization).*

GAIA believes that waste incineration has no place in a sustainable future. Incinerators burn up and squander valuable resources, produce toxic emissions and residues, pose financial burdens to host communities, and compete with waste prevention and recycling programmes that could have created jobs and benefited local economies. For more information, visit [www.noburn.org](http://www.noburn.org) ▲

## EVENTS

### CMAI WORKSHOP IN KOLKATA

The Christian Medical Association of India (CMAI) conducted a workshop titled 'Consultative discussion on legal issues of hospitals' in Kolkata on November 25-26. The event was organised to apprise hospitals of the various legal issues concerning them. The workshop was aimed at CEOs, medical superintendents, administrators and nursing superintendents working in christian hospitals in North, East and North-eastern regions. Toxics Link organised sessions on creating awareness about different aspects of BMW and managing hospital waste. ▲

### REGIONAL WORKSHOPS ON MUNICIPAL AND MEDICAL WASTE MANAGEMENT

Toxics Link has designed a series of regional workshops on municipal solid waste and bio-medical waste. In this series, the fourth regional workshop on municipal and bio-medical waste management will be organized in Bhopal on January 30-31, 2006. The two-day event will have representations from the state of Madhya Pradesh, Jharkhand, Orissa and Chattisgarh.

The workshop aims to create a common platform for different stakeholders: PCBs, municipalities, healthcare institutes, grassroot NGOs and individuals associated with solid waste and medical waste. The thrust of the workshop will be to share skills and develop wider understanding of practices on waste management. The workshop, it is hoped, will help the participants in understanding and learning about region specific problems, rules and regulations covering waste management. Successful models will also be discussed and strategies

for future directions will be developed during the workshop.

**The Chennai nodal office is organising a similar workshop in Coimbatore on January 10-11, 2006. ▲**

### SIGN WORKSHOP

The Safe Injection Global Network (SIGN) meeting was held in Hanoi, from November 14-16. The meeting was held back-to-back with the second International Scientific Conference on Occupational and Environmental Health.

The objective was to exchange information regarding the safe and appropriate use of injections worldwide. Injection safety projects in various countries were also reviewed. ▲

## HUMAN AFFAIRS

You 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 below, and provide us with the following:

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.

*If you have suggestions or require information, please contact:*

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## Resources

### Nurses booklet

A handy pocket-sized booklet on bio-medical waste management introduces nurses to important waste management aspects such as management of sharps, handling of chemicals like mercury and glutaraldehyde, segregation of biomedical waste, importance of accident reporting and bio-medical waste norms.

### Ward boys poster

A poster in Hindi titled 'Ward ki safai aap ki suraksha' has been developed to educate ward boys or the housekeeping staff about the dos and don'ts regarding handling of waste. The stress is on safety gear and precautions to be taken while transporting bio-medical waste.

To obtain a copy, please contact: [info@toxicslink.org](mailto:info@toxicslink.org) ▲

