



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
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Health Care Waste

“Health-care activities protect and restore health and save lives”

But what about the waste and by-products they generate?

Of the total amount of waste generated by health-care activities, about 85% is general, non-hazardous waste. The remaining 15% is considered hazardous material that may be infectious, toxic or radioactive.

Types of waste

Waste and by-products cover a diverse range of materials, as the following list illustrates:

- **Infectious waste:** waste contaminated with blood and other bodily fluids (e.g. from discarded diagnostic samples), cultures and stocks of infectious agents from laboratory work (e.g. waste from autopsies and infected animals from laboratories), or waste from patients with infections (e.g. swabs, bandages and disposable medical devices);
- **Pathological waste:** human tissues, organs or fluids, body parts and contaminated animal carcasses;
- **Sharps waste:** syringes, needles, disposable scalpels and blades, etc.;
- **Chemical waste:** for example solvents and reagents used for laboratory preparations, disinfectants, sterilants and heavy metals contained in medical devices (e.g. mercury in broken thermometers) and batteries;

- **Pharmaceutical waste:** expired, unused and contaminated drugs and vaccines;
- **Cytotoxic waste:** waste containing substances with genotoxic properties (i.e. highly hazardous substances that are, mutagenic, teratogenic or carcinogenic), such as cytotoxic drugs used in cancer treatment and their metabolites;
- **Radioactive waste:** such as products contaminated by radionuclides including radioactive diagnostic material or radiotherapeutic materials; and

Non-hazardous or general waste:

waste that does not pose any particular biological, chemical, radioactive or physical hazard.

The major sources of health-care waste

- hospitals and other health facilities
- laboratories and research centres
- mortuary and autopsy centres
- animal research and testing laboratories
- blood banks and collection services

Health risks

Health-care waste contains potentially harmful microorganisms that can infect

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hospital patients, health workers and the general public. Other potential hazards may include drug-resistant microorganisms which spread from health facilities into the environment.

Adverse health outcomes associated with health care waste and by-products also include:

- sharps-inflicted injuries;
- toxic exposure to pharmaceutical products, in particular, antibiotics and cytotoxic drugs released into the surrounding environment, and to substances such as mercury or dioxins, during the handling or incineration of health care wastes;
- chemical burns arising in the context of disinfection, sterilization or waste treatment activities;
- air pollution arising as a result of the release of particulate matter during medical waste incineration;
- thermal injuries occurring in conjunction with open burning and the operation of medical waste incinerators; and radiation burns.

Waste management: reasons for failure

- Lack of awareness about the health hazards related to health-care waste
- inadequate training in proper waste management
- absence of waste management and disposal systems,
- insufficient financial and human resources
- the low priority given to the topic

These are the most common problems connected with health-care waste. Most of the time we do not have appropriate regulations, or do not enforce them.

The way forward

The management of health-care waste requires increased attention and diligence to avoid adverse health outcomes associated with poor practice, including exposure to infectious agents and toxic substances.

Key elements in improving health-care waste management are:

- promoting practices that reduce the volume of wastes gen-

erated and ensure proposer waste segregation;

- developing strategies and systems along with strong oversight and regulation to incrementally improve waste segregation, destruction and disposal practices with the ultimate aim of meeting national and international standards;
- where feasible, favouring the safe and environmentally sound treatment of hazardous health care wastes (e.g, by autoclaving, microwaving, steam treatment integrated with internal mixing, and chemical treatment) over medical waste incineration;
- building a comprehensive system, addressing responsibilities, resource allocation, handling and disposal. This is a long-term process, sustained by gradual improvements;
- raising awareness of the risks related to health-care waste, and of safe practices; and
- selecting safe and environmentally-friendly management options, to protect people from hazards when collecting, handling, storing, transporting, treating or disposing of waste.

Government commitment and support is needed for universal, long-term improvement, although immediate action can be taken locally.

Source: Health Care Waste. World Health Organization. www.who.int

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Table 1: Selected notifiable diseases reported by Medical Officers of Health 28th - 04th May 2018 (18th Week)

RDHS Division	Dengue Fever		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Chickenpox		Meningitis		Leishmaniasis		WRCD	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	T*	C**
Colombo	109	2786	3	31	0	4	2	20	0	7	9	69	1	6	0	3	0	0	21	333	0	20	0	2	63	100
Gampaha	34	1563	2	19	0	4	0	11	1	11	0	90	1	3	0	4	0	0	20	334	1	19	3	12	73	100
Kalutara	35	1221	2	26	0	2	1	3	0	34	13	165	0	3	0	5	0	0	19	241	0	31	0	3	54	100
Kandy	62	1135	1	25	0	4	0	2	1	8	3	15	0	44	0	10	0	0	11	140	1	12	0	6	62	100
Matale	24	371	1	6	0	1	0	0	0	10	3	17	0	1	0	3	0	0	0	17	0	5	3	43	60	100
NuwaraEliya	5	69	2	15	0	3	1	8	3	5	0	9	0	64	1	13	0	0	10	118	3	19	0	0	28	100
Galle	7	429	2	17	0	5	0	0	0	2	11	165	0	13	0	1	0	1	8	116	1	19	0	4	13	100
Hambantota	3	435	1	7	0	0	0	2	0	4	0	17	0	21	0	1	1	1	5	109	0	2	14	243	73	100
Matarra	7	408	0	15	0	5	0	3	0	21	2	70	0	18	3	5	0	0	4	125	0	3	3	153	54	100
Jaffna	19	1262	0	58	0	0	0	23	0	196	1	5	2	209	0	0	0	0	12	153	0	6	0	2	34	93
Kilinochchi	7	122	0	10	0	1	0	8	0	1	1	2	0	7	0	0	0	1	0	23	1	1	0	0	50	100
Mannar	0	25	0	10	0	0	0	2	0	2	0	1	0	0	0	0	0	0	4	20	0	1	0	0	37	100
Vavuniya	5	196	2	7	0	3	1	25	0	7	3	17	0	7	0	0	0	1	0	20	0	1	0	3	54	100
Mullaitivu	0	29	2	4	0	0	2	8	0	9	0	6	0	2	0	0	0	0	0	6	0	0	0	1	15	100
Batticaloa	165	2384	10	78	0	5	0	2	1	15	2	15	0	1	0	2	0	1	6	57	0	9	0	0	62	100
Ampara	1	61	0	15	0	0	0	1	0	2	0	19	0	0	0	3	0	0	5	85	0	4	0	1	70	100
Trincomalee	16	335	1	23	0	0	0	4	0	8	0	18	0	13	0	1	0	0	8	104	0	2	1	11	30	100
Kurunegala	32	1123	3	61	1	6	0	8	0	2	0	37	0	6	0	8	0	1	11	218	1	39	5	83	69	100
Puttalam	30	1022	0	16	0	4	0	3	0	4	0	12	0	6	0	1	0	0	5	65	0	32	0	1	74	100
Anuradhapura	18	354	2	20	0	2	0	2	4	10	1	49	1	13	0	4	0	0	10	164	0	13	8	137	43	100
Polonnaruwa	2	113	0	10	0	1	0	0	1	11	0	50	0	0	0	3	0	0	12	99	0	7	6	75	64	100
Badulla	6	182	1	40	0	4	0	5	0	7	1	50	0	26	3	13	0	0	11	235	8	43	1	4	49	100
Monaragala	2	435	2	41	0	2	0	1	0	2	7	118	0	57	0	6	0	0	6	70	4	20	2	18	61	100
Ratnapura	61	761	3	67	1	24	0	8	0	2	12	134	1	18	0	6	0	1	10	142	6	49	4	112	43	100
Kegalle	22	524	1	23	1	6	1	4	2	64	5	39	2	39	0	7	0	0	4	154	2	19	0	3	66	100
Kalmune	46	1137	2	22	0	0	0	1	0	19	0	2	0	0	0	1	0	0	8	86	0	6	0	1	47	100
SRILANKA	718	18482	43	666	3	86	8	154	13	463	74	1191	8	577	7	100	1	7	210	3234	28	382	50	918	53	99

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 04th May, 2018. Total number of reporting units 351. Number of reporting units data provided for the current week: 351. C**=Completeness
A = Cases reported during the current week. B = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

28th – 04th May 2018 (18th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2018	Number of cases during same week in 2017	Total number of cases to date in 2018	Total number of cases to date in 2017	Difference between the number of cases to date in 2018 & 2017
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	01	00	00	00	00	00	00	01	00	02	02	20	31	- 35.4 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	03	00	00	01	00	02	00	01	00	07	02	138	112	23.2 %
Measles	00	00	00	00	00	01	00	00	00	01	01	48	109	- 55.9%
Rubella	00	00	00	00	00	00	00	00	00	00	00	04	06	- 33.3 %
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Tetanus	00	00	00	00	00	00	01	00	00	01	00	10	08	25 %
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Japanese Encephalitis	00	00	00	01	00	00	00	00	00	01	00	14	21	- 33.3%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	15	05	200%
Tuberculosis	05	11	06	02	19	06	00	04	02	55	126	2576	2741	-6.1%

Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.
RDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna, KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam, AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.

Data Sources:

Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS,

Special Surveillance: AFP* (Acute Flaccid Paralysis), Japanese Encephalitis

CRS** =Congenital Rubella Syndrome

NA = Not Available

Dengue Prevention and Control Health Messages

Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them free of water collection.

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ON STATE SERVICE

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