

Main legislation relevant to Biosafety in HK

General duty under HK Occupational Safety and Health Ordinance Cap 509 Section 6 (1)

" **Every employer MUST**, as far as is reasonably practicable, ensure the safety and health at work of all his **employees**"

Implementation of the International Health Regulations in HK - CAP 599. Gives powers to Health Inspectors in the event of an outbreak of infectious disease.

Clinical waste Legislation Cap3540
<http://www.hkliv.org/hk/legis/en/reg/3540/>
Came into force on August 1st 2011

Clinical Waste -Sources of Information

Legislation Cap3540
<http://www.hkliv.org/hk/legis/en/reg/3540/>
Came into force on August 1st 2011

Environmental Protection Department dedicated web pages www.epd.gov.hk/epd/clinicalwaste/
Includes downloadable copies of the Code of Practice

University policy -Safety Office website
<http://www.safety.hku.hk/homepage/pdf/CWD.pdf>

Key Points of the legislation

A licensing system for all clinical waste collectors and disposal facility operators.

Clinical waste producers are to manage their clinical waste by consigning it to licensed collectors for delivery to a licensed disposal facility.

A consignment note (trip ticket) system tracks the movement of clinical waste from source to disposal facility.

The Chemical Waste Treatment Centre (Tsing Yi) is designated as the facility for treatment of clinical waste. A disposal charge for use of the facility.

It promotes "Codes of Practice" for large and small waste producers to provide guidance for both waste producers and collectors. (The University is considered a small waste producer despite generating around 50,000Kg of clinical waste a year)

Waste producers have a duty of care to:-

Segregate clinical waste from other waste streams

Package and label clinical waste properly for easy identification

Provide safe and secure temporary storage area

Ensure staff take necessary safety measures and receive sufficient training

What is clinical waste? Material generated in connection with various medical, veterinary or laboratory activities.

Group 1 - Used or Contaminated Sharps

Group 2 - Laboratory Waste

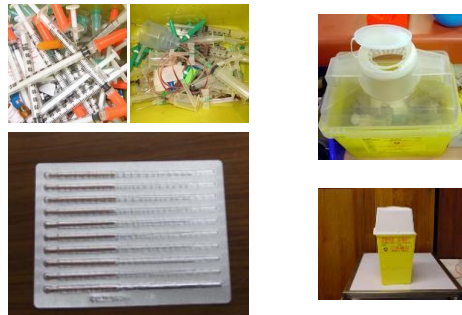
Group 3 - Human and Animal Tissues

Group 4 - Infectious Materials (from patients with a specified list of high risk agents)

Group 5 - Dressings

Group 6 - Other Wastes

Group 1 - Used or Contaminated Sharps



Group 2 - Laboratory Waste



Autoclaved or disinfected materials are not considered clinical waste

Group 3 - Human and Animal Tissues



Includes:-
Biopsies,
Blood,
Sections,
FACS sorted cells etc

Group 4 - Infectious Materials
Materials from patients with
CCHV/Ebola/Lassa etc or infected cultures

Group 5 - Dressings
Dribbling, caked or containing
free flowing blood



Group 6 - Other Wastes
Specified by Director - certain medical
cases may pose significant risk

What isn't clinical waste?

- 1) Radioactive waste, whether arising from medical sources or not, as defined under the Radiation (Control of Radioactive Substances) Regulations (Cap. 303A);
- 2) Chemical waste as defined under the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C) including cytotoxic drugs;
- 3) Dead animals and animal tissues, organs and body parts arising from veterinary practices, abattoirs, pet shops, farms, wholesale and retail markets, Chinese medicine practices, or domestic sources; and Human corpses.

Groups of Clinical Waste	Type(s) of Container	Colour	Sealing
Group 1 - Used or contaminated sharps	Sharps box	YELLOW or combination of YELLOW and WHITE sharps box (RED BAG)	Proprietary closure
Group 3 - Human and animal tissues	Heavy duty plastic bag	YELLOW	Plastic tie
Group 2 - Laboratory waste Group 4 - Infectious materials Group 5 - Dressings Group 6 - Other wastes	Heavy duty plastic bag	RED	Plastic tie

Packaging Requirements for Different Groups of Clinical Waste.

ALL BAGS TO BE LABELLED WITH DEPARTMENT AND PRODUCER BAR CODE



In practice most clinical waste from HKU will be packed in red bags.

Even small amounts of human and animal tissue can be put in red bags

From EPD website



Handling

- (a) check that storage bags, boxes and drums are effectively sealed; <80% full;
- (b) handle bags by the neck only; trolleys?
- (c) handle sharps containers and plastic drums safely;
- (d) avoid damaging the packaging and not throw it, drop it, drag it along the ground or step on it;
- (e) know the procedure in the event of accidental spillage and to report accidents;
- (f) check that the seal of any storage container is unbroken when movement is complete;
- (g) understand the special problems related to special types of clinical wastes, e.g. sharps,
- (h) spillage protocols



Collection of Clinical Waste: Schedule	
Location	Collection Time
Refuse Room, Faculty of Medicine Building	Afternoon (Every Monday and Thursday)
Refuse Room, Pauline Chan Building Laboratory Animal Unit	Afternoon (Every Monday)
Refuse Room, Kadoorie Biological Science Building Refuse Room, Meng Wah Complex	Afternoon (Every Thursday)
QMH, Pathology building: Institute for Human performance:	By arrangement
HK Jockey Club Interdisciplinary Research building	Afternoon (Every Thursday)

In the summer months animal carcasses deteriorate quickly and should not be placed in the yellow collection bins before 12.00 on the day of the collection

Under the Current Arrangements - 5 sites are registered with EPD, and there are 7 pick up points.

Record Keeping - legal requirement

Must include:-

- The date of consignment/delivery;
- The quantity of clinical waste consigned/delivered;
- The address of the premises from which the clinical waste is delivered;
- For consignment to a licensed collector, the name of the licensed collector

"Pickup" points

Some modification to make more safe and secure



FMB pickup point

Examples of poor practice

- i) Poorly packaged materials
- ii) Non-clinical waste in the bins e.g. broken glass
- iii) Bags in the wrong bins
- iv) Bags without producer codes or departmental labels
- v) Bags on the floor or in over-full bins



Import / Export controls

Implementation of BWC convention in HK - CAP 606, point 3 biological, chemical nuclear weapons. Licences are required for potentially dual use agents - listed in an Appendix. Includes Influenza H5N1, etc

Implementation of the International Health Regulations in HK - CAP 599 Licenses are required when:-

1. Importing any disease causing infectious agent from overseas
2. Obtaining from overseas cell lines containing infectious agents.
3. Obtaining from overseas samples of any kind including clinical material where there is a reasonable expectation that a disease causing infectious agent could be present.
4. Importing to Hong Kong samples obtained from overseas field trips that might contain a disease causing infectious agent.
5. Importation of infectious samples for laboratory accreditation exercises.

Implementation of Cartagena protocol in HK - CAP 607

Import and export of Genetically Modified Organisms. Shipping labels etc.

Transportation of Infectious Substances and Biological Substances

- UN Committee of Experts on Dangerous Goods, *UN Model Regulations on the Transport of Dangerous Goods*
- International Civil Aviation Organization (ICAO), *Technical Instructions for Safe Transport of Dangerous Goods by Air*
- International Air Transport Association (IATA), *Dangerous Goods Regulations*
- Regulations for transport by Road, Rail and Sea in many countries

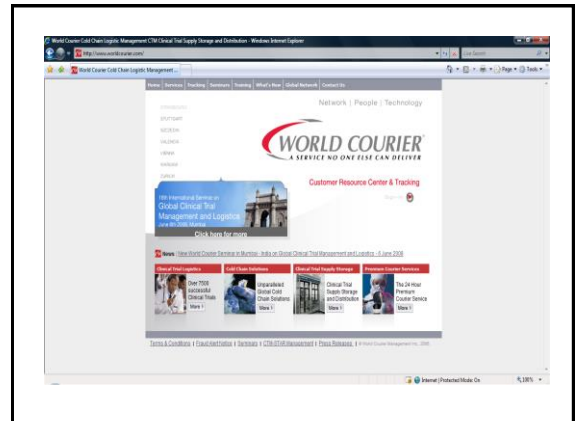
Most slides from NIH/WHO

Triple Packaging

Primary receptacle (labeled, primary water tight, leak proof receptacle containing the specimen)

Secondary receptacle (durable, water tight, leak proof receptacle containing primary receptacle)

Outer shipping package (rigid, bearing forms, permits, etc.)



Local "Transport" (in and between labs and buildings)

- ❖ Organise to minimise.
- ❖ Use primary and secondary leak proof containers for high titre stocks.
- ❖ Avoid carrying unpackaged tubes or racks in common areas - use screw caps if possible.
- ❖ Use containers where possible.

Please note recent university guidance:-

"The safe transport of infectious materials and import/export requirements for Hong Kong"

Practices & procedures



Use leak-proof transport containers

Even transport from the centrifuge