6. The new hospital waste classification and definitions

6.1 Infectious waste

<table>
<thead>
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<th>Infectious waste includes:</th>
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<tr>
<td>1) Waste from infectious wards or patients infected by drug-resistant pathogen</td>
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<tr>
<td>2) Culture or deposited materials with infectious pathogen (all cultures with microbes)</td>
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<tr>
<td>3) Human blood and residue sample for examining blood and body fluid</td>
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<td>4) Polluted lab waste</td>
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<td>5) Plaster, bandages, dressings, gloves, mops, etc. contacted with blood and wound</td>
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<td>6) Discarded or outdated bio-products, such as: Blood serum, bacterins, etc.</td>
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<td>7) Those hard-to-be-disinfected one-way medical instruments, such as one-way injectors, syringes, draught bottle, blood vessel catheter, draught tube, blood dialyze and pipes.</td>
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<tr>
<td>8) One-way textile contaminated with blood and body fluid</td>
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<tr>
<td>9) Other materials contaminated with blood and body fluid</td>
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</table>

**Origin:** All contaminated waste from the diagnosis and treatment of patients with infectious diseases e.g. AIDS, Hepatitis, CJD, Cholera, Typhus, Dysentery, Tuberculosis, Meningitis, Diphtheria, Rabies, etc..

**Disposal/Treatment:** The waste must be collected in a safe way and disinfected, e.g. through central autoclaving. The disinfected waste can be disposed of on a landfill.

6.2 Sharps

| Sharps including injection (puncture) pinhead, scalp pinhead, scalpel, suture needle and acupuncture needle, one-way puncture needle, other sharps contaminated with blood and body fluid. All the sharps must be considered as infectious waste. |

**Origin:** Generated in all medical departments e.g. Wards, Surgery, Laboratories, Haemodialysis facilities, etc..

**Disposal/Treatment:** Collected separately in puncture proof containers and disinfected, e.g. through central autoclaving, shredded and disposed of on a landfill.
6.3 Pathological waste

Pathological waste includes human tissues, organs, body parts, placenta, embryo, lab animal dead body, stored blood.

**Origin:** Body part, organs and stored blood from the surgery, pathology, blood bank, etc..

**Disposal/Treatment:** The pathological waste should be separately collected and must be disposed of in accordance to the local existing laws, e.g. through cremation, burying.

6.4 Household waste

Healthcare waste with similar composition to household and municipal waste, (not including the waste contaminated with blood and body fluid), like waste produced in hospital dormitories, hospital construction waste.

**Origin:** Generated in all medical and non-medical departments e.g. Wards, Kitchen, Administration, Technical Department, Garden, etc..

**Disposal/Treatment:** Normal landfill, (recycling plant)

6.4.1 Recyclable materials

Sub-group of household waste. Discarded materials which can be reprocessed into new, useful products.

**Origin:** Generated in all medical and non-medical departments e.g. Wards, Kitchen, Administration, Technical Department, etc., e.g. glass, paper, cardboard, plastic.

**Disposal/Treatment:** Recycling plant

6.5 Radioactive waste

Waste containing radioactive substances, such as radiation sources, isotope testing reagents and mixtures, etc. Radioactive waste can be further divided into low-level and high-level radioactive waste.

**Origin:** Cancer treatment, Nuclear medicine, Laboratory, Research, etc.

**Disposal/Treatment:** Must be collected under consideration of their dangerousness and must be treated in special interim storage facilities (lead walls).
6.6 Chemical waste

Mainly refers to fixer and developer solvent in X-ray department, discarded materials like discarded reagent in labs, waste with mercury, like fluorescence lamp, amalgam in dental dept., batteries with mercury and other materials with mercury (like broken thermometer), other dangerous solid waste, like storage cell with lead, batteries, waste contaminated with oil (solid waste with polychlorinated biphenyl solid chemical medicament) other dangerous solvent, used oil, solvents with or without halogen, acid and alkaline waste water, formaldehyde, pesticide.

**Origin:** Generated in laboratories, X-ray, Research departments, Dispensary, Drugstore, Pharmacy, Engineering department, etc.

**Disposal/Treatment:** Chemicals should be collected, transported and treated according to their chemical characteristics. Photo chemicals should be de-silvered and vaporized. The residues can be disposed of.

6.7 Cytotoxic waste

Genotoxic materials are mainly used in anti-tumor chemotherapy medicine (cancer treatment), including alkyl group chemicals and anti-metabolite medicine.

**Origin:** Cancer treatment, Laboratory, Pharmacy, etc.

**Disposal/Treatment:** Must be collected under consideration of their dangerousness and can be treated by special waste high temperature incineration (> 1300°C).

6.8 Disposables syringes and injectors

Syringes and injectors which are not polluted by blood or fluid, including injectors without return blood or syringes without serious return blood.

**Origin:** Generated in medical departments e.g. Wards, Operation Theatres, Treatment Rooms.

**Disposal/Treatment:** Recycling plant