

VIETNAM GERMANY FRIENDSHIP HOSPITAL



SHARP WASTE MANAGEMENT PLAN

Version No:.....

Date of effect:

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Signature			
Position		Head of Infection Control Dept.	Director



VIETNAM GERMANY HOSPITAL

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Code:

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Version: 1

Total pages:

1. *Relevant persons shall read and comply with contents of this regulation.*
2. *Contents of this regulation are as effective as directions of Vietnam – Germany friendship hospital.*
3. *Each department shall receive 01 stamped document. Head of Infection control department have responsibility for delivering more stamped document when the departments require.*

RECEIVER (Mark with X next to receiver)

<input type="checkbox"/>	Consultation department	<input type="checkbox"/>	Intensive care unit
<input type="checkbox"/>	Skeleton examination department	<input type="checkbox"/>	Anesthesia & Resuscitation department
<input type="checkbox"/>	On demand consultation department	<input type="checkbox"/>	Endoscopy department
<input type="checkbox"/>	Hemodialysis department	<input type="checkbox"/>	Pathological department
<input type="checkbox"/>	Spinal surgery department	<input type="checkbox"/>	Hematological and blood transfusion department
<input type="checkbox"/>	Plastic & facial surgery department	<input type="checkbox"/>	Biochemical department
<input type="checkbox"/>	Neurological surgery department	<input type="checkbox"/>	Microbiological department
<input type="checkbox"/>	Thoracic and cardiac surgery department	<input type="checkbox"/>	Infection control department
<input type="checkbox"/>	Pediatric surgery department	<input type="checkbox"/>	Nursing department
<input type="checkbox"/>	Intestinal surgery department	<input type="checkbox"/>	Virility department
<input type="checkbox"/>	Trauma & orthopedic surgery department I	<input type="checkbox"/>	Endoscopic surgery department
<input type="checkbox"/>	Trauma & orthopedic surgery department II	<input type="checkbox"/>	Imaging diagnostic and nuclear medicine center
<input type="checkbox"/>	Intestinal emergency surgery department	<input type="checkbox"/>	Surgery anesthesia and Resuscitation center
<input type="checkbox"/>	Infectious surgery department	<input type="checkbox"/>	Neurological surgery center
<input type="checkbox"/>	Urological surgery department	<input type="checkbox"/>	Large intestine and rectal surgery department
<input type="checkbox"/>	Hepato surgery department		
<input type="checkbox"/>	Rehabilitation department		

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1. INTRODUCTION

In framework of “Demonstrating and promoting best techniques and practices for reducing Health care waste to avoid environmental releases of dioxins and mercury” project funded by Global Environmental Facility through UNDP, the Plan for sharp waste management in Vietnam Germany Friendship hospital and some hospitals in center of Hanoi was developed and implemented.

The sharp waste management plan is a document providing all procedurs on sharp waste management in Vietnam Germany Friendship hospital. Sharp waste management plan is used to regulate sharp waste management activities in order to improve healthcare waste management in Vietnam Germany Friendship hospital.

The sharp waste management plan describes procedures applied to sharp waste management activities including:

- Segregation of sharp waste
- Collection of sharp waste
- Transportation of sharp waste to interim storage
- Storage of sharp waste
- Off-site transportation, treatment and disposal of sharp waste
- Management of sharp waste containers
- Treatment of sharp waste related accident
- Training and communication
- Annex 1: Weekly report on sharp waste management
- Annex 2: Report on violence to sharp waste management regulation.

2. DOCUMENTS OF REFERENCE

During development and implementation of this plan, the following documents should be referred:

- Decesion No 43/2007/QĐ-BYT of Minister of Health promulgating Regulations of healthcare waste management;
- Decision No 3079 /QĐ-BYT dated 21/8/2008 of Minister of Health promulgating regulations on organization and activities of working safety network in healthcare establishments.
- Circular No 12/2011/TT-BTNMT regulating hazardous waste management;
- Circular No 18/2009/TT-BYT of Ministry of Health guiding organization and implementation of infection control activities in healthcare establishments
- Decision No 1040/2003/QĐ-BYT dated 1/4/2003 of Minister of Health promulgating “Gudelines for hospital infection control processes”
- Decision No 1895/1997/QĐ-BYT dated 19/9/1997 of Minister of Health promulgating hospital regulation.
- Decision of Director of Vietnam Germany Friendship hospital approving Charter of Vietnam Germany Friendship
- Decision of Director of Vietnam Germany Friendship hospital on establishment of hospital infection control council.

3. TERMINOLOGIES AND DEFINITION

Abbreviations in Sharp waste management plan:

MOH	Ministry of Health
HCW	Healthcare waste
IC	Infection control
GEF	Global Environmental Facility
UNDP	United Nation Development Program

4. INTRODUCTION OF VIETNAM GERMANY FRIENDSHIP HOSPITAL

- **Fullname:** Vietnam Germany Friendship Hospital
- **Address:** No 40, Tràng Thi street, Hàng Bông commune, Hoàn Kiếm district, Hà Nội
- **Telephone:** (844) 8.253.531 **Fax:** (844) 8.248.308
Email: bvvd@fpt.vn
- **Size:**
Vietnam Germany Friendship hospital is level I specialist hospital directly managed by Ministry of Health. The hospital has 1000 beds and 1320 staff. In the hospital, there are 135 environmental workers and 83 security workers.
- **Tasks and responsibilities:**
The hospital is surgery specialist hospital at highest level in Vietnam. In addition, the hospital is also responsible for conducting researches, providing training and performing referral support.

5. HEALTHCARE WASTE MANAGEMENT POLICY

Healthcare waste management policy

Vietnam Germany Friendship hospital – surgery specialist hospital at highest level in Vietnam – commits to implement and improve continuously its healthcare waste management system to keep hospital environment clean and beautiful, protect community health.

Principle of works

All staff of Vietnam Germany Friendship hospital will continuously improve knowledge, practices and attitudes in healthcare waste management according to the principle:

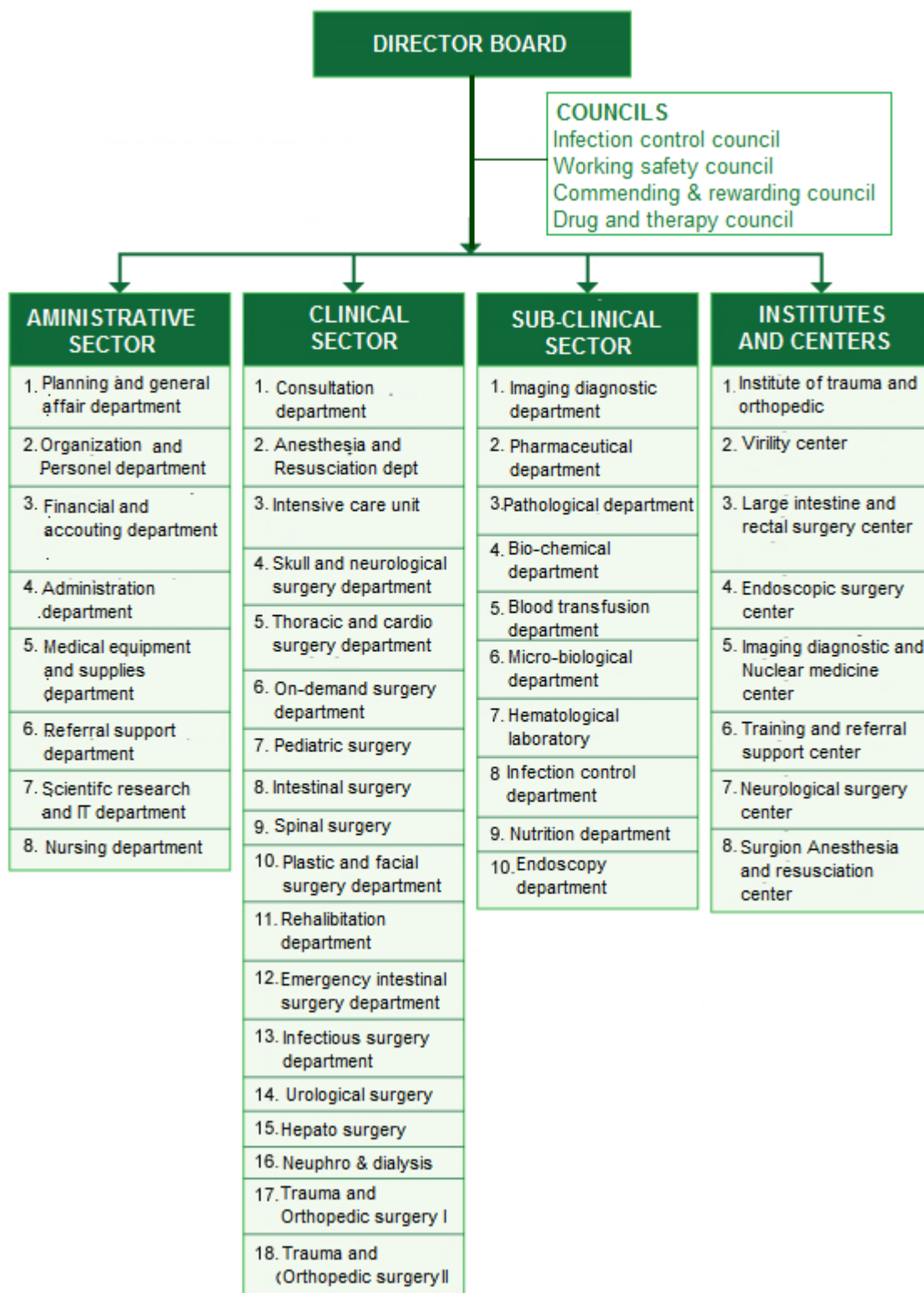
- Ensure safety for health staff, patients, relatives, students and community surrounding the hospital
- Save cost for segregation, collection, transportation, storage, treatment and disposal of healthcare waste

Guidelines for works

- Comply with Environmental Protection Law, Regulations on healthcare waste management, Regulations on hazardous waste management, and relevant National technical
- Continuously learn and apply environmental science and technologies into healthcare waste management
- Correctly monitor and mitigate impacts of healthcare waste to environment and community health
- Complete environmental objectives and parameters according to hospital circumstances
- Provide training and disseminate hospital's healthcare waste management policy to hospital staff and stakeholders.

6. ORGANIZATIONAL STRUCTURE

In terms of organizational structure, the hospital has director board, 8 managerial departments, 10 para-clinical departments, 18 clinical departments, 8 centers and institutes. Beside, the hospital established councils such as Infection control council, Work safety council, Commendation and reward council e.g



7. RESPONSIBILITIES, TASKS AND AUTHORITIES

7.1 Taks and responsibilities of stakeholders relevant to HCWM:

- a) **Infection control council:** is responsible for: (i) giving advice to Director to issue technical regulations on HCWM and infection control in the hospital; (ii) giving advice to Director to approve plan for HCWM and infection control activities; (iii) giving advice to Director to design, repair, construct health facilities in accordance with HCWM and infection control principles; (iii) giving advice to Director to organize training, conduct scientific research and referral support in terms of HCWM and infection control.
- b) **Infection control department** is responsible for: (i) Developing regular and annual infection control plan to submit and get approval of Infection Control Committee and Director; (ii) Developing regulation, procedure in infection control field based on general guidance and regulation of the Ministry of Health and submit to Director for approval and to implement; (iii) Cooperating with departments to supervise HCWM and infection control activities and propose intervention measures; (iv) Inspecting, speeding up staff, medical, nursing students, patients, patient family and visitors to follow correctly infection control and HCWM practices ; (v) Providing training, conduct scientific research and participate in referral support activities in the field of infection control and HCWM; (vi) Managing sterilization, disinfection, laundry activities, provide aseptic instruments, chemicals for disinfection and sterilization; (vii) monitoring hospital environment including microbiological surveillance and hospital wastewater quality.
- c) **Administration department** is responsible for: (i) organizing and preparing contract to external facilities for healthcare waste collection, transportation, storage, treatment and disposal; (ii) maintaining and repairing water supply and wastewater sewerage system in the hospital; (iii) collecting and treating linen; (iv) cooperating with Infection control department to procure and supply consumables for HCWM and infection control activities; (v) selecting external facility for and submitting to Director to sign contract for collection, transportation, treatment and disposal of hazardous waste.

- d) **Nursing departments, planning and general affairs department and other departments** are responsible for cooperating with Infection Control department to develop infection control guideline, process and to inspect, monitor infection control activities in the hospital
- e) **Microbiological department** is responsible for cooperating with Infection Control department (group) to conduct nosocomial surveillance and hospital environment; Timely informing Infection Control department and clinical departments the results of bacterial culture and situation of antibiotic resistant microorganism caused nosocomial infection in the hospital as regulation.
- f) **Pharmaceutical department** is responsible for providing information on sterilization chemicals, antibiotics and antibiotic safety use to Infection Control department; cooperating with Infection Control department to make proposals for purchasing and using chemicals, consumable materials to meet requirements of infection control activities.
- g) **Hanoi urban environmental JSC – URENCO 10** is responsible for off-site transportation, treatment and disposal of hazardous healthcare waste.
- h) **ICT company Ltd** is responsible collecting and transporting healthcare waste to storage area; cleaning departments and hospital precinct.

7.2 Responsibilities and authorities of positions:

a) **Hospital director:**

Tasks:

- Give direction and implement Regulations on HCWM (issued in accordance with Decision No. 43/2007/QĐ-BTY), Regulations on Hazardous waste management (issued in accordance with Circular 12/2011/BTNMT) and Guidelines for Infection Control (issued in accordance with Circular 18/2009/TT-BYT) in the hospital.
- Develop, approve and issue plans, internal regulations and technical processes on HCWM and infection control
- Invest annual budget sufficiently for HCWM and infection control activities.

- Insure enough manpower, equipment, machine, chemicals, materials for professional practice and infection control activities. Ensure geen, clean, beautiful hospital's environment.
- Give direction for organizing training, scientific research, inspection, monitoring of the implementation of HCWM and Infection Control Regulations
- Ensure safe for medical staff, patient, especially in case epidemic occurs.
- Raise competition campaign and carry out award, punishment for infection control activities.

Authorities

The hospital director has full authorities regulated in Hospital regulations and Decree No. 43/2006/NĐ-CP regulating autonomy in execution of tasks, organizational structure, staffing and financial management in public professional organizations.

b) Members of hospital infection control network

Hospital infection control network includes representatives of clinical and para-clinical departments; each department nominates at least a doctor or a nurse to participate in Infection Control Network.

Members of hospital infection control network have following tasks:

- Participate in, cooperate to organize HCWM and infection control activities in the department.
- Participate in inspection, monitoring and speeding up staff in the department to follow regulations and technical processes on HCWM and infection control

c) Head of Infection control department

Tasks:

Being accountable to the hospital director for HCWM and infection control in the hospital, Head of Infection control department has following tasks:

- Implement fully the taks of Infection Control department.
- Develop infection control and HCWM plans to submit and get approval of Director and implement that plan.

- Give direction to monitor, detect and propose countermeasures timely to control occupational exposure to hazardous waste, nosocomial infection cases and infectious diseases caused epidemic.
- Participate in development of internal regulations and technical processes on HCWM and infection control and supervise the implementation.
- Develop proposal for purchasing, norm and technical standard of equipment, consumable materials and chemicals for HCWM infection control activities in the hospital.
- Participate in providing guidance, training on HCWM and infection control for medical staff, lecturers, medical – nursing students, patients, patient family and visitors.
- Conduct scientific research, training and referral support activities in the fields of HCWM and infection control.
- Cooperate with related departments to evaluate effectiveness of implementing Regulations on HCWM and Infection Control.
- Sump up, make report on activities and result of HCWM and infection control in the whole hospital.

Authorities:

- Carry out general tasks of a head of department.
- Inspect and request departments, individuals to implement properly Infection Control regulation.
- Make proposal to Director to award or punish individuals and departments for getting achievement or violating Regulations on HCWM and Infection Control.
- To be the standing member of Infection Control Committee, member of Quality Control Committee and member of Drug and Therapy Committee.

d) Head nurse of Infection control department

Tasks:

- Carry out general tasks of a head nurse.
- Assist head of department to implement the task as standing member of Infection Control Committee and other tasks of Infection Control department.
- Make plan for equipment management, usage of consumable materials, chemicals for professional works in the department.

- Participate in development of regulations and technical processes on HCWM and infection control
- Carry out other tasks, power assigned by the head of department.

Authorities:

- Has the same authority to other head nurses of department
- Has the authority to monitor infection control regulation and activities in other departments as assignment of head of Infection Control department

d) Staff in Infection control department:

Tasks:

- Correctly follow Infection Control and HCWM regulations and technical processes.
- Participate in development of technical processes on HCWM and Infection control, monitoring compliance.
- Detect and monitor nosocomial infections in departments.
- Manage equipment, materials and chemicals related to infection control activities when assigned.
- Carry out the tasks assigned by head of Infection Control department

Authorities:

Have the authority to monitor the compliance of Infection Control and HCWM regulation of individuals, departments as assignment of head of Infection Control department; Have the authority to inspect, detect, monitor, sum up infection status in the departments as assignment of head of Infection Control department

e) Heads of departments in hospital

- Organize to implement regulations, guidance, technical processes related to Infection Control and HCWM.
- Instruct patients, patient family and visitors to follow infection control and HCWM regulations related to them.
- Cooperate with Infection Control department to organize training on infection control for staff members, newly contracted staff, students in the department; conduct scientific research, monitor and evaluate infection control and HCWM activities.

- Detect and inform timely suspected/ confirmed infection cases in the department to Infection control department; cooperate with Infection control department to monitor, detect epidemic cases, nosocomial infections and antibiotic resistant microorganism in the department.

g) Head nurses of departments in hospital

- Monitor and speed up medical staff to comply infection control regulations, procedures in caring and treatment.
- Give guidance, check hand hygiene compliance of medical staff, patient family, patients and visitors.
- Give instructions and manage PPE, monitor proper use of PPE to ensure highest effectiveness of infection control.
- Assign nurses to monitor, nosocomial infections and compliance of Waste Management Regulation, aseptic hygiene process in the department.

h) Doctors, healthcare workers, teachers, students in hospital

- Participate in training courses on infection control and HCWM.
- Properly follow infection control regulations and processes.

i) Patients, relatives and visitors

- Strictly follow regulations on visiting time, isolation countermeasures as regulation and guidance of the health facilities.
- Implement regulations on hygiene, waste segregation and other regulations of the health facilities.
- The group A infectious patients have to obey the regime for treatment, isolation, movement or discharge as indication of the health facility.

8. SHARP WASTE MANAGEMENT PLAN

8.1 Scope

The sharp waste management plan is applied to all activities and departments in Vietnam Germany Friendship hospital.

The sharp waste management plan was developed in accordance with Decesion No 43/2007/QĐ-BYT of Minister of Health promulgating Regulations of healthcare waste management, Circular No 12/2011/TT-BTNMT regulating hazardous waste management, Circular No 18/2009/TT-BYT of Ministry of Health guiding organization and implementation of infection control activities in healthcare establishments.

8.2. Contents of sharp waste management

Regulatory documents:

1. Hospital's waste management policy
2. Department's working regulation;

Procedures and forms:

1. Procedures:

Standardized operating procedures on segregation of sharp waste

Standardized operating procedures on collection of sharp waste

Standardized operating procedures on transportation of sharp waste

Standardized operating procedures on storage of sharp waste

Standardized operating procedures on off-site transportation, treatment and disposal of sharp waste

Standardized operating procedures on management of sharp waste containers


Standardized operating procedures on treatment of sharp waste related accident

Standardized operating procedures on training and communication on sharp waste management

2. Forms

Weekly report on sharp waste management

Report on violence to sharp waste management regulation.

 <p>Vietnam Germany hospital</p>	<p>STANDARDIZED OPERATING PROCEDURES</p> <p>SEGREGATION OF SHARP WASTE</p>	Code	
		Version	
		Date of effect	


1. **Purpose:** ensure correct segregation of sharp waste.
2. **Scope of application:** all departments in Vietnam Germany Friendship hospital generating sharp waste shall apply this procedures
3. **Responsibility:** all persons working in Vietnam Germany Friendship hospital (including hospital staff, environmental workers, medical students, patients and their relatives) generating sharp waste shall apply this procedures.

4. **Equipments and supplies:**

Sharp containers shall meet the following requirements: Hard wall and bottom are hardly penetrable, leak-proof capacity, suitable size, the lid easy to open/close, the opening is big enough to contain sharp items without propulsive force, marked with the inscription “for sharp items only”, a horizontal line running at the height of 3/4 of the bag with the inscription of "no storing beyond this line", yellow color, with handle or enclosed with fixation system, sharp items inside aren't dropped out during transportation.

5. **Methods:**

- + Definite sharp waste: sharp waste are wastes which may cause cuts or punctures, maybe pathogen contamination, including: syringes and needles, scalpel blades, surgery nails, saws, injection ampoules, broken glass pieces and all other sharp items used in medical activities.
- + Put sharp waste in sharp waste containers at generating places (medical trolley, minor surgery trolley, blood taking table e.g).
- + Do not recap or bend needles to avoid injury, do not put non-sharp waste (syringe, transfusion line) in sharp waste containers.

 <p>Vietnam Germany hospital</p>	<p>STANDARDIZED OPERATING PROCEDURE</p> <p>COLLECTION OF SHARP WASTE</p>	Code	
		Version	
		Date of effect	


1. **Purpose:** ensure safe collection of sharp waste in departments.
2. **Scope of application:** all departments in Vietnam Germany Friendship hospital generating sharp waste shall apply this procedures
3. **Responsibility:** environmental workers of ICT hygiene company Ltd shall be responsible for collecting sharp waste in departments.
4. **Equipments and supplies:**

Each department shall assign a location for placement of waste containers (including sharp waste containers). Location of interim collection shall be equipped with instruction of waste segregation and collection.

Workers collecting sharp waste shall have and use personal protective equipments (especially industrial gloves and footwear)


5. **Methods:**

Sharp waste containers filled up to level of 3/4 shall be collected to location interim collection in department. Fulfilled sharp waste container shall be replaced immediately by empty one.


 <p>Vietnam Germany hospital</p>	STANDARDIZED OPERATING PROCEUDRES TRANSPORTATION OF OF SHARP WASTE TO INTERIM STORAGE	Code	
		Version	
		Date of effect	

1. **Purpose:** ensure safe on-site transportation of sharp waste
2. **Scope of application:** from gate of departments to storage place in the hospital precinct.
3. **Responsibility:** Environmental workers of ICT hygiene Ltd shall be responsible for transporting sharp waste from departments to storage place in hospital precinct.
4. **Equipments and supplies:**

Waste transportation vehicles shall meet standards: having the wall, cover, closed bottom, easy to load and unload the waste, easy to clean, disinfect and dry. Transportation vehicles are color coded and marked with bio-hazard symbol.
5. **Methods:**
 - Collect sharp waste containers from departments on regulatory time.
 - Place sharp waste containers in transportation vehicle of hazardous waste, do not mix sharp waste with other hazardous waste.
 - Transport sharp waste containers to storage according to regulatory route.
 - Transfer sharp waste containers to person in charge of healthcare waste storage.
6. **Record:** book of healthcare waste exchange

 <p>Vietnam Germany hospital</p>	<p>STANDARDIZED OPERATING PROCEUDRES</p> <p>STORAGE OF SHARP WASTE</p>	Code	
		Version	
		Date of effect	

1. **Purpose:** ensure safe storage of sharp waste in hospital precinct
2. **Scope of application:** Infection control department and hospital storage area
3. **Responsibility:** workers operating healthcare waste storage area (assigned by Infection control department)
4. **Physical facility, equipments and supplies:**
 - Storages place shall meet the following requirements: be far from food-preparing places, patients' wards, crowded sites and public paths at least 10 m; have ways for waste carriers to come from the outside; have roofs, protection fences, doors and locks to prevent animals, rodents and unassigned persons from freely penetrating therein; the area is suitable to the waste volumes generated from the healthcare establishments; be built with water drainage systems, water -resistant floor and wall, good ventilation.
 - Storage equipments for sharp waste are containers made of high density plastic, having thick and rigid wall, capacity of 70 liters and yeallow color. The container's outside is marked with bio-hazard symbol, inscription of "sharp waste only", a line at level of 3/4 and inscription of "not storing beyond this line".
 - Facilities for hand-washing, means for protection of personnel, cleaning tools and chemicals.
5. **Methods:**
 - Receive sharp waste containers transported to storage area by environmental workers.
 - Transfer sharp waste from small containers to big container
 - Store sharp waste safely
 - Transfer sharp waste containers to hazardous waste transporter
 - Take record in the book of healthcare waste exchange
 - Storage time of sharp waste does not exceed 48 hours.
6. **Record:** book of healthcare waste exchange

 <p>Vietnam Germany hospital</p>	<p>STANDARDIZED OPERATING PROCEDURE</p> <p>OFF-SITE TRANSPORTATION, TREATMENT AND DISPOSAL OF OF SHARP WASTE</p>	Code	
		Version	
		Date of effect	

1. **Purpose:** ensure safe off-site transportation, treatment and disposal of sharp waste.

2. **Scope of application:** Administration department, Infection control department, company providing transportation, treatment and disposal service.

3. **Responsibility:**

- Head of Administration department is responsible for selecting hazardous waste management practitioners and negotiating with hazardous waste management

- Head of Infection control department is responsible for assigning staff to cooperate with workers of transportation and treatment facility to perform signed contract; supervising facility of sharp waste transportation and treatment.

- Head of Financial and Accounting department is responsible for carrying out final acceptance and payment for sharp waste transportation and treatment facility.

- Sharp waste transportation and treatment facility is responsible for transporting, treating and disposing sharp waste in accordance with signed contract.

3. **Requirements for company providing off-site transportation, treatment and disposal of sharp waste:**

- Have licence for management of hazardous waste in Hanoi, have registration for transportation, treatment, disposal of sharp waste or hazardous healthcare waste.

- Have specific transportation vehicle(s) meeting requirements: a) Transportation vehicle has registry for circulation; b) Transportation vehicle is equipped with warning equipment and emergency response facility; c) Transportation vehicle is designed to avoid leakage and spillage of hazardous

waste into environment, mixing sharp waste with other hazardous waste; d) Have warning sign according to Vietnam standard TCVN 6707-2000 on “Hazardous waste – warning signs”.

- Have specific methods, technologies and facilities for sharp waste treatment and disposal that were appraised by Department of Environment and Natural Resource. If incineration is applied, the healthcare waste incinerator shall meet Vietnam standard TCVN 7380:2004 on technical requirements for healthcare waste incinerator and gas emission from incinerator shall meet National Technical Regulations QCVN 02:2008/BTNMT. If land disposal is applied, hazardous waste landfill shall comply with regulations in Article 75 of Environmental Protection Laws and Vietnam construction standard TCXDVN 320:2004 on design standard of hazardous waste landfill. Incinerator’s ash shall be safely disposed in hazardous waste landfill or bury pit having concrete bottom, wall and cover.

4.

Methods:

- Selecting and signing contract with sharp waste transportation, treatment and disposal facility shall be implemented through following steps: call for tender of hazardous waste transportation, treatment and disposal; evaluate capacity of hazardous waste transportation, treatment and disposal facilities; negotiate contract with hazardous waste transportation, treatment and disposal facility; take consultation with Infection control council on contract of sharp waste transportation, treatment and disposal; submit hospital director for signing contract with hazardous waste transportation, treatment and disposal facility.

- Execution of contract with sharp waste transportation, treatment and disposal facility: Staff of Infection control department transfers sharp waste to transporter at [redacted] hour every day. Place of transfer is healthcare waste storage area of the hospital. Sharp waste is contained in closed sharp waste container. Quantity of sharp waste transferred to transporter shall be recorded in book and form of exchange. Sharp waste transporter shall transport sharp waste safely to treatment and disposal facility according to requirements of signed contract registered route. Treatment and disposal facility shall treat and dispose sharp


waste safely. The transfer of sharp waste from Infection control staff to transporters shall be recorded and signed in hazardous waste document.

- Transport sharp waste out of hospital for treatment and disposal. Transportation, treatment and disposal facility shall perform correctly signed contract.


- Monitor and supervise off-site transportation, treatment and disposal of sharp waste by hazardous waste document. The hospital and hazardous waste management practitioner fulfill the hazardous waste document according to signed contract and issued licences. Both sides shall follow procedures of hazardous waste document management regulated in Annex 3 of Circular No. 12/2011/TT-BTNMT. The infection control staff is responsible for reminding hazardous waste transporter to return two last vouchers of hazardous waste document; checking signatures of transportation, treatment and disposal facilities; sending the 6th voucher to Department of Environmental and Natural Resource within 15 days.

- Conduct final acceptance and payment for sharp waste transportation, treatment and disposal facility.

6. **Record:** Contract for hazardous waste transportation, treatment and disposal; hazardous waste document; supervision checklist.

 <p>Vietnam Germany hospital</p>	<p>STANDARDIZED OPERATING PROCEUDRES</p> <p>MANAGEMENT OF OF SHARP WASTE CONTAINERS</p>	Code	
		Version	
		Date of effect	

1. **Purpose:** ensure safely disinfect and reuse sharp waste containers in order to save energy and cost for sharp waste management.
2. **Scope of application:** Infection control department
3. **Responsibility:** workers operating healthcare waste storage (assigned by Infection control department)
4. **Physical facility, equipments and supplies:**
 - + Separate area for contaminated sharp waste containers
 - + Separate area for clean sharp waste containers
 - + Cleaning and disinfection tools
 - + Handwashing facilities and equipment, personal protective equipments.
5. **Methods:**
 - + Receive filled sharp waste containers from environmental workers.
 - + Transfer sharp waste from small containers to big container.
 - + Clean emptied sharp waste containers
 - + Disinfect cleaned sharp waste containers
 - + Dry sharp waste containers
 - + Store disinfected sharp waste containers
 - + Disseminate disinfected sharp waste containers to departments
6. **Record:** Book of sharp waste containers exchange

 <p>Vietnam Germany hospital</p>	<p>STANDARDIZED OPERATING PROCEUDRES</p> <p>TREATMENT OF ACCIDENT DUE TO SHARP WASTE</p>	Code	
		Version	
		Date of effect	

1. **Purpose:** Ensure effective prophylaxis treatment of injury due to sharp waste.
2. **Scope of application:** all departments in the hospital shall be responsible for applying this procedure
3. **Responsibility:**
 - + Injured person shall be responsible for treating wound site, reporting to the supervisor and complete the report form, complying with testing and post-exposure prophylaxis treatment.
 - + Head of department: sent completed report form to occupational health office
 - + Head of occupational health office: shall be responsible for counselling and providing anti-retrovirus therapy
 - + Head of Infection control department: update the incident and take measures to prevent similar exposure.
4. **Equipments and supplies:**
 - + First aids tools for treatment of exposure site
 - + Equipment for HIV, HBV, HCV testing
 - + Antiretrovirus treatment drugs
5. **Methods:**
 - + *Step 1: Treat the exposure site:* Flush the wound with tap water, Let the wound bleed for a short time 3 – 5 minutes, do not squeeze; clean the wound thoroughly with soap and water; disinfect wound by disinfectants (Dakin, Javel 1/10, alcohol 70⁰) in at least 5 minutes.
 - + *Step 2: Report to the manager and complete the report form:*
Indicate the date, time and the context of exposure, describe the wound and assess the level of risk. Get the signatures of the witnesses and the supervisor.
 - + *Step 3: Assess the risk of exposure*

Risk presents with: Bleeding percutaneous wounds caused by containing blood needles: the risk is higher in case of deep wounds caused by large-bore needle containing a lot of blood compared with that of shallow wounds from fine needles with less blood; Deep percutaneous wounds caused by scalpels or broken tubes containing patient's blood and body fluids; Existing lesions, ulcers or scratches on the skin or mucus membranes exposed to patient's blood and body fluids (even when the status of ulcers is unclear): the risk is higher with large ulcers or scratches.

No risk: normal skin exposed to patient's blood or body fluids.

+ *Step 4: Determine the HIV, HBV, HCV status of the source of exposure:* If the source patient is HIV (+), HbsAg (+), Anti HCV (+): get information on the use of and response to ARV treatment; If the HIV, HBV, HCV status of the source is unknown: provide counseling and perform HIV, HBV, HCV tests. In some cases it is impossible to identify the HIV status of the source (being exposed while on duty, the subject ran away), treat as HIV (+), HbsAg (+), Anti HCV (+) cases.


+ *Step 5: Determine the HIV, HBV, HCV status of the exposed person:* Provide pre-test and post-test counseling as regulated. If the exposed person has positive test result right after the exposure incident: HIV, HBV or HCV infection occurred before, not due to the exposure incident; If HIV (-), HBV (-), HCV (-) then HIV, HBV or HCV test is required after 3 months and 6 months.

+ *Step 6: Counsel the exposed person on.* Risk of infection with HIV, HBV, HCV; Information and services of the prophylaxis, its benefits and risks; Side effects of ARV and signs of primary HIV infection: fever, rash, nausea or vomiting, anemia, lymphadenopathy, etc; *tu vãn* Prevention of HIV transmission to others: exposed person may transmit HIV to others even if the test is negative (the window period) and they, therefore should practice all prevention measures; Adherence to treatment and psychological support.

+ *Step 7: ARV prophylaxis for the exposed person:* Provide ARV treatment as soon as possible, best within 2 – 6 hours after and before 72 hours after the exposure to all exposure cases with risk. At the same time, assess the HIV status of the source of exposure and the exposed person. If the source of exposure

is HIV (+): continue the treatment. If the source of exposure is HIV (-): it is possible to discontinue the treatment. If the source is suspected as having risk factor and is in the period window, the treatment should be continued. If the exposed person is HIV (+): do not provide prophylaxis, refer for follow-up and provide treatment as a normal HIV positive case. If the exposed person is HIV (-): continue the treatment; Exposure with no risk: no treatment is needed; If the HIV status of the source of exposure cannot be determined: treat as a case of exposure to the HIV (+) source.

6. **Record:** Report on injury due to sharp waste

 <p>Vietnam German hospital</p>	<p>STANDARDIZED OPERATING PROCEDURE</p> <p>TRAINING AND COMMUNICATION ON SHARP WASTE MANAGEMENT</p>	Code	
		Version	
		Date of effect	

1. **Purpose:** Ensure healthcare professionals and environmental workers working in the hospital having sufficient knowledge and skills to manage sharp waste.
2. **Scope of application:** Infection control department, clinical departments and hygiene company working the hospital
3. **Responsibility:**

Infection control department has responsibility for developing annual training plan and submit to hospital director for approval; organizing implementation of approved plan; reviewing and improving training program on sharp waste management in the hospital.

Heads of clinical and para-clinical have responsibility for cooperating with Infection control department to provide training on sharp waste management for all staff working in departments.

Director of hygiene company has responsibility for cooperating Infection control department to provide training sharp waste management for all workers working in the hospital.

4. **Physical facility, equipments and supplies:**

- + Training compendium and handouts on sharp waste management
- + Presentation equipments: projector, projector screen and computer
- + Illustration tools: syringes and needles; sharp waste containers; personal protective equipments; sharp waste collection, transport and storage equipments.

5. **Methods:**

Training for doctors: Training frequency is 1 time per year. Training topics include: Definition of sharp waste; Health hazards of sharp waste; segregation

of sharp waste; use of personal protective equipments; treatment of sharp waste related injury.

Training for nurses and technicians: Training frequency is 2 times per year. Training topics include: Definition of sharp waste; Health hazards of sharp waste; segregation of sharp waste; use of personal protective equipments; treatment of sharp waste related injury.

Training for orderlies and environmental workers: Training frequency is 4 times per year. Training topics include: Definition of sharp waste; Health hazards of sharp waste; collection, transportation, storage of sharp waste; use of personal protective equipments; treatment of sharp waste related injury.

6. **Record:** book of roll-call

ANNEX 1
WEEKLY REPORT
ON SHARP WASTE MANAGEMENT

Content of report

1. Supervision of sharp waste segregation
2. Supervision of sharp waste collection
3. Supervision of sharp waste transportation
4. Supervision of sharp waste storage
5. Supervision of off-site transportation of sharp waste
6. Number of sharp waste related accident.

ANNEX 2: REPORT ON
VIOLENCE TO SHARP WASTE MANAGEMENT REGULATIONS

Time:hour.....minute, datemonth.....year.....

Department:

We are: Representative of Infection control department:.....

Representative of Nursing department:.....

Representative of department:.....

Detect violence to sharp waste management regulation in the department as follows::

.....
.....
.....
.....
.....
.....
.....
.....

The violence was recorded at department.....

athour.....minute, datemonth.....year.....

Department of violence

Nursing department

Infection control

Signature

Signature

Signature