

Unique ID:

**MODEL INJECTION CENTER (MIC)
2005-09**
An IndiaCLEN, Program Evaluation Network Study

**HEALTH-CARE WASTE MANAGEMENT
HEALTH FACILITY TOOL**

**SECTION 2; Interview Scheduled With Person/ Medical Officer Responsible For
Health Care Waste Management in Hospital**

Date	<u>DD</u>	<u>DD</u>	<u>MM</u>	<u>MM</u>	<u>YY</u>	<u>YY</u>
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Name of health facility	
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Designation of the interviewee	
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Location of functioning	<input type="checkbox"/> Rural	<input type="checkbox"/> Urban	Type of hospital	<input type="checkbox"/> Public	<input type="checkbox"/> Private
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District	Tehsil / Taluk	Village/ Town

MIC – Trained Personnel	<input type="checkbox"/> [0] No	<input type="checkbox"/>
	<input type="checkbox"/> [1] Yes	<input type="checkbox"/>

Instructions for filling up the interview schedules

Dear friends

1. Do not prompt for any answer
2. Please record the responses in appropriate boxes by TICKING (✓) and later enter the answer (code) in boxes provided next to each question.
3. Where blank box is provided, write the responses actually given by the respondent [verbatim] in the blank boxes provided under these questions.
4. The reported information will be treated as confidential and used to understand the current bio-medical waste management in the hospitals.
5. Use pencil / black ball pen only

Namaskar, My name is, I would like to discuss few topics which will help us to improve the health care waste management system and there by increase the quality of health care. I would appreciate if you could spare your valuable time to speak to me. Your responses will be kept confidential.

There are **five broad categories** in the rapid assessment tool, **section II**.

- I. Generation and segregation of bio-medical waste**
- II. In-house transport of bio-medical waste**
- III. Central bio-medical waste storage facility**
- IV. Treatment and final disposal plans for bio-medical wastes**
- V. Bio medical waste management staff & training**

General information regarding health facility

1. Health facility characteristics

1.1. What is the average monthly attendance in your health facility?

[0] Less than 1500 patients

[1] Greater than 1500 patients

[8] Refuse to answer

[9] Don't know/ not sure

1.2. Which of the following best describes your health facility?

[1] Primary care setting

[2] Secondary care setting

[3] Tertiary care setting

[9] Don't know/ not sure

2. For which of the following components of biomedical waste management, your institution has an organized system to monitor?

2.1. Generation and segregation of biomedical wastes

[0] No [1] Yes [9] don't know/ not sure

2.2. Collection and safe storage of biomedical wastes

[0] No [1] Yes [9] don't know/ not sure

2.3. Safe transport of biomedical wastes

[0] No [1] Yes [9] don't know/ not sure

2.4. Treatment and final disposal of biomedical wastes

[0] No [1] Yes [9] don't know/ not sure

3. Are you the designated official responsible for biomedical waste management?

[0] No

[1] Yes

[8] Refuse to answer

[9] Don't know/ Not sure

If 'yes' move to question number 3.2

3.1 If not, is there any other designated official / person responsible for biomedical waste management?

[0] No

[1] Yes

[8] Refuse to answer

[9] Don't know/ Not sure

3.2 Please mention the designation of official responsible for bio medical waste management?

(to be recorded verbatim)

i. Generation and segregation of bio-medical wastes

Questions in this section are related to generation and segregation of biomedical wastes in health facilities. Read the notes / skip patterns in columns on the right side of each question. Enter appropriate answer on the boxes provided. Please do not prompt for any answers.

4.	Does your organization have enforced guidelines / charts for the management of bio medical wastes as per the rules of central pollution control board (CPCB)/ state pollution control board?	<p>[0] No</p> <p>[1] Yes</p> <p>[2] Others (specify.....)</p> <p>[8] Refused to answer</p> <p>[9] Don't know / Not sure</p>	<input type="checkbox"/>
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4.1	If yes, are the guidelines / charts displayed in patient care areas like,	[0] No [1] Yes [2] Patient care area is not available in this health facility [8] Refused to answer [9] Don't know / Not sure	If answer is 'no' move to question number 5
4.1.1	Casualty/ Emergency ward		
4.1.2	General wards		
4.1.3	Pay wards		
4.1.4	Operation theatre		
4.1.5	OPD (Outpatient department)		
4.1.6	Vaccination room		
4.1.7	Dressing room		
4.1.8	Injection room		
4.1.9	Sample collection rooms		
4.1.10	Laboratories		
4.1.11	Blood bank		
4.1.12	Special clinics (like malaria/ HIV clinic)		

4.2	Where are generally the charts positioned / put up in the above listed patient care areas		
4.2.1	Near the point of generation of biomedical waste in each location	[0] No [1] Yes [8] Refused to answer [9] Don't know / Not sure	<input type="checkbox"/>
4.2.2	At the entrance of patient care area	[0] No [1] Yes [8] Refused to answer [9] Don't know / Not sure	<input type="checkbox"/>
4.2.3	Most prominent location in the patient care area	[0] No [1] Yes [8] Refused to answer [9] Don't know / Not sure	<input type="checkbox"/>

4.2.4	Somewhere inside the room but not at specific location	[0] No [1] Yes [8] Refused to answer [9] Don't know / Not sure	<input type="checkbox"/>
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5. Average number of waste bags and quantity of wastes in Kg's produced per day, in your institution?

NB: Please enter '000', if not using particular sized bag, enter '999' if the answer is "Don't know/ not sure"

The values can be approximate but will help us to make an anticipation of the burden of waste management in each district.

5.1 Yellow bags / infectious wastes

5.1.1. Small sized (number used per day)

5.1.2. Middle sized (number used per day)

5.1.3. Large sized (number used per day)

5.1.4. Approximate **weight** of infectious waste in Kg's generated per day?

5.2 Blue/ Red bags for solid plastic wastes

5.2.1. Small sized (number used per day)

5.2.2. Middle sized (number used per day)

5.2.3. Large sized (number used per day)

5.2.4. Approximate **weight** of solid plastic wastes in Kg's generated per day?

5.3. Black bags for domestic wastes

5.3.1. Small sized (number used per day)

5.3.2. Middle sized (number used per day)

5.3.3. Large sized (number used per day)

5.3.4. Approximate **weight** of domestic wastes in Kg's generated per day?

5.4 White translucent container for sharps

5.4.1. Average number of containers/ day

5.4.2. Approximate **weight** of sharps produced in Kg's per day

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5.5 Any other colour coded bags

5.5.1. Small sized (**number used per day**)

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5.5.2. Middle sized (**number used per day**)

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5.5.3. Large sized (**number used per day**)

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5.5.4. Approximate **weight** of domestic wastes in Kg's generated per day?

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NB: Please enter '000', if not using particular sized bag, enter '999' if the answer is "Don't know/ not sure"

6.	Is the bio-medical waste segregated in your health facility before treatment and final disposal?	[0] No [1] Yes - always [2] Yes – Occasionally / incompletely [8] Refused to answer [9] Don't know/ not sure	<input style="width: 30px; height: 20px;" type="checkbox"/>
7.	What type of container used to segregate,		
7.1	Infected non plastic wastes (e.g.: Swabs/ tissues/body fluids)	[0] No specific container [1] White puncture-proof containers [2] Blue /Red bags [3] Containers with yellow bags [4] Containers with black bags [5] Others (specify----- -----) [8] Refused to answer [9] Don't know/ not sure	<input style="width: 30px; height: 20px;" type="checkbox"/>

If 'no' skip to question no. 8

7.2	Infected plastic wastes (e.g. Catheters, Gloves, IV lines, syringe body)	[0] No specific container [1] White puncture-proof containers [2] Blue /Red bags [3] Containers with yellow bags [4] Containers with black bags [5] Others (specify----- -----) [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>
8.	What are you doing to used needles before segregating?	[0] Thrown as such [1] Hub cut / needle broken [2] Bent and made unusable [3] Sold to kabadi wala [8] Refuse to answer [9] Don't know/ Not sure	<input type="checkbox"/>
9.	What are you doing to used syringes before segregating?	[0] Thrown as such [1] Hub cut / plunger broken/ body damaged [2] Sold to kabadi wala [8] Refuse to answer [9] Don't know/ Not sure	<input type="checkbox"/>
10.	What type of container used to store sharp wastes ?	[0] No specific container [1] White puncture-proof containers [2] Blue/ Red container [3] Containers with yellow bags [4] Containers with black bags [5] Dumped / Burried in a pit [6] Others (specify----- -----) [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>

	10.1	Whether the sharps are treated/ disinfected in the area of segregation itself?	[0] No [1] Yes [2] Stored / collected for later disinfection [8] Refused to answer [9] Don't know/ not sure	
	10.1.1	Whether infected plastic wastes treated/ disinfected in the area of segregation itself?	[0] No [1] Yes [2] Stored /Collected for later disinfection [8] Refused to answer [9] Don't know/ not sure	

	11.	What type of container used to store domestic wastes ?	[0] No specific container [1] Container with yellow bags [2] Container with blue/ red bags [3] Container with black bags [4] Others(specify----- -----) [8] Refused to answer [9] Don't know/ not sure	
	12	Was there any shortage in the supply of colored bags/ containers in last 3 months?	[0] No [1] Yes [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>

Skip to Q.13, if no segregation

	12.1	If yes , for what reasons were the shortages for these containers?		
				<input type="checkbox"/>

ii In-house transport of bio-medical waste

13	Is there separate / specific time schedule to remove infectious wastes and general wastes from the wards?	[0] No [1] Yes [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>
14	Is there a dedicated waste route in your hospital designated to avoid the passage of wastes through patient care areas?	[0] No [1] Yes [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>
15	What kind of devise/ equipment do you use for the transport of health care related waste inside the hospital?	[0] No separate devise [1] Waste baskets [2] Open trolley [3] Closed trolley [4] Other (specify----- -----) [8] Refused to answer [9] Don't know / Not sure	<input type="checkbox"/>
15.1	Are these equipment/ devise earmarked for exclusive use for transport/ transfer of biomedical wastes?	[0] No [1] Yes [8] Refused to answer [9]Don't know/ not sure	<input type="checkbox"/>
15.2	Are these equipment/ devises labeled with bio-hazard symbols ?	[0] No [1] Yes [8] Refused to answer [9]Don't know/ not sure	<input type="checkbox"/>
15.3	How frequently these instruments/ devices are cleaned and disinfected ?	[0] Never / Once in a while [1] More than once in a week [2] 2-4 times in a month [3] Less than once a month [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>

Skip to Q.13, if no segregation

iii. Central bio-medical waste storage, treatment facility

16	Is there a designated area for storage of bio medical wastes before treatment and final disposal?	[0] No [1] Yes [2] Others [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>
16.1	If yes, is the area secured with a lock and key system?	[0] No [1] Yes [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>
16.2	Is there a designated person responsible for this area?	[0] No [1] Yes [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>

17.	Please indicate which treatment facility are available in this hospital		
17.1	Incinerator	[0] No [1] Yes [9] Don't know / not sure	<input type="checkbox"/>
17.2.	Autoclave	[0] No [1] Yes [9] Don't know / not sure	<input type="checkbox"/>
17.3.	Microwave	[0] No [1] Yes [9] Don't know / not sure	<input type="checkbox"/>
17.4.	Chemical disinfection	[0] No [1] Yes [9] Don't know / not sure	<input type="checkbox"/>
17.5.	Shredder	[0] No [1] Yes [9] Don't know / not sure	<input type="checkbox"/>

18	How frequently biomedical wastes are moved from your patient care area for treatment and final disposal?	[0] As and when sufficient quantity of biomedical waste accumulates [1] More than once in week [2] 2-4 times in a month [3] Less than once a month [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>
19	In health facilities where no centralized bio medical treatment facility exists,		
19.1	How do you dispose the biomedical wastes?	[1] Municipality [2] Private agencies [3] Rag pickers/ sold to kabadiwala [4] Thrown out of health facility by hospital staff [8] Refuse to answer [9] Don't know/ Not sure	<input type="checkbox"/>

If answer is Municipality [1], then skip to Q.21

20.	If anybody other than municipality is picking up the waste then,		
20.1	Whether they are authorized by appropriate authority?	[0] No [1] Yes [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>
21.	Does health facility use deep burial as final disposal method?	[0] No [1] Yes [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>
21.1	What is the type of land/ dumping place?	[1] Open filling land [2] Open pit [3] Closed pit [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>

If answer is 'no' then skip to Q.22

	21.2	How far (in approximate meters) is this facility from hospital?	[1] In-house/ inside hospital campus [2] Approximately 500 meters away from hospital campus [3] Greater than 500 meters from hospital campus [8] Refused to answer [9] Don't know/ Not sure	<input type="checkbox"/>	
	21.3	How far (in approximate meters), is the nearest residential area?	[1] Less than 100 meters [2] 100 to 500 meters [3] Greater than 500 meters [8] Refused to answer [9] Don't know / not sure	<input type="checkbox"/>	
22.		Does health facility use open fire as final disposal method	[0] No [1] Yes [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>	If answer is 'no' then skip to Q.23

	22.1	How far (in approximate meters) is this facility from hospital?	[1] In-house/ inside hospital campus [2] Less than 500 meters from hospital campus [3] Greater than 500 meters from hospital campus [8] Refused to answer [9] Don't know / not sure	<input type="checkbox"/>
	22.2	How far (in meters), is the nearest residential area?	[1] Less than 100 meters [2] 100 to 500 meters [3] Greater than 500 meters [8] Refused to answer [9] Don't know / not sure	<input type="checkbox"/>

23.	Did you ever receive any complaints with regards to transport and/or treatment/ disposal of biomedical wastes?		
23.1.	From local community	[0] No [1] Yes [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>
23.2.	Any notice from authorities	[0] No [1] Yes [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>

23.3.	What are the reasons and frequency of complaints/ notice (To be recorded verbatim)

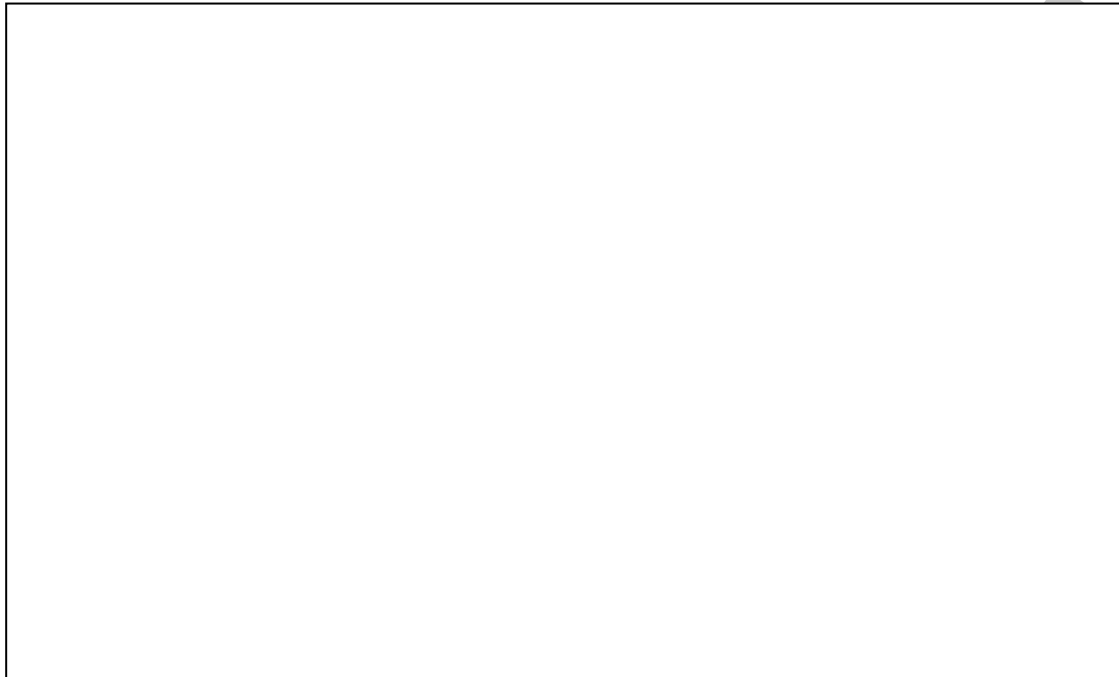
24.	How is the different type of treated biomedical waste disposed off? (to be recorded verbatim)	
24.1.	Incinerated ash	
24.2.	Treated plastic wastes	
24.3.	Treated sharps	

NB: Write 'NA' if biomedical waste are not treated/ generated

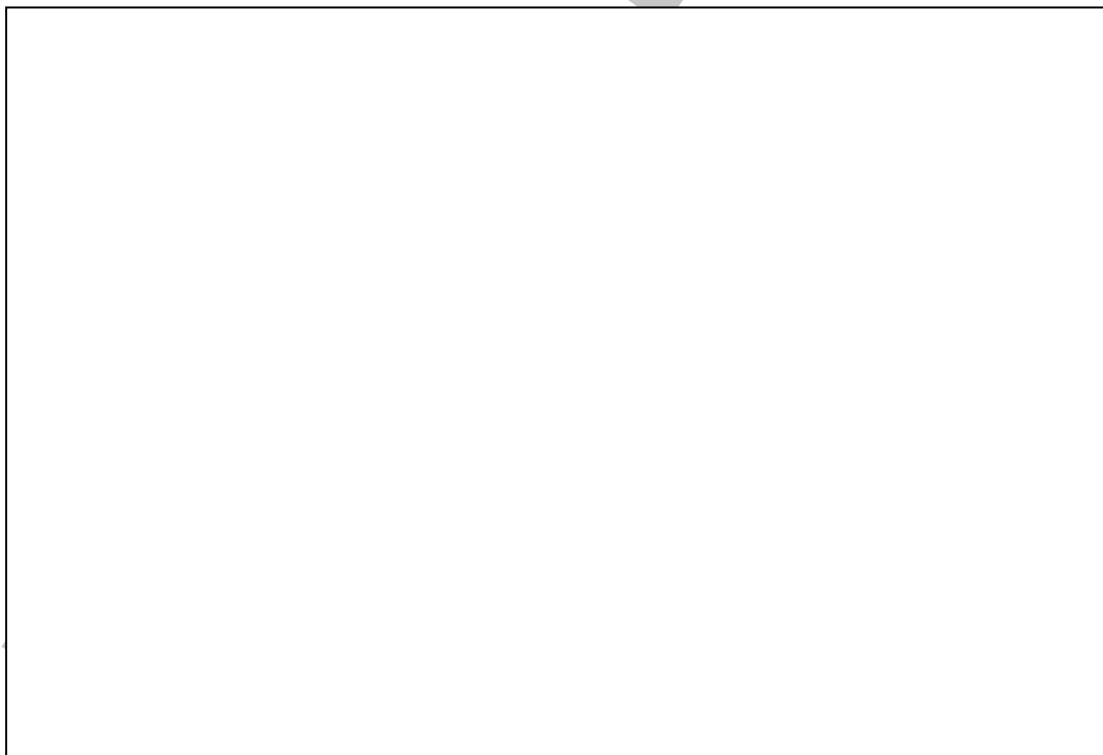
25.	Maintenance schedule for bio medical treatment facilities		
25.1	Incinerator	[0] Never/ Once in a while [1] More than once in week [2] 2-4 times in a month [3] Less than once a month [7] Not available [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>
25.2	Autoclave/ Microwave	[0] Never/Once in a while [1] More than once in week [2] 2-4 times in a month [3] Less than once a month [7] Not available [8] Refused to answer [9] Don't know/ not sure	
25.3	Shredder	[0] Never/Once in a while [1] More than once in week [2] 2-4 times in a month [3] Less than once a month [7] Not available [8] Refused to answer [9] Don't know/ not sure	<input type="checkbox"/>
25.4	What are the reasons for down times for waste treatment facility?	[1] Maintenance / Servicing [2] Spare-parts [3] Financial problems [4] Resources (fuel or electricity) [5] Manpower [8] Refused to answer [9] Don't know/ not sure	

26. What do you do when bio-medical waste treatment system at health facility doesn't function?

(to be recorded verbatim)



27. What is the available system in your health facility to treat/ dispose off unused medicines (e.g., pharmaceutical wastes)?



28. What is the available system in your health facility to treat effluent from hospital?

(to record verbatim)

v. Health care waste management staff

29. Has your staff been ever trained on health care waste management?

[0] No

[1] Yes

[8] Refused to answer

[9] Don't know/ not sure

29.1. If yes, is the training given in your institution/ health facility?

[0] No

[1] Yes

[8] Refused to answer

[9] Don't know/ not sure

29.2. If training is not available in your institute then, where is the facility?

[1] Same city/ district but another location

[2] Another city/ district

[3] At state/ regional/ national level

29.3. What proportion/ percentage of your staff are trained in waste management?

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Please enter '000' - if none, and '999' - if don't know/ not sure

30. What means of protection are used by waste handling staff's?

[0] None

[1] Masks

[2] Masks and Gloves

[3] Masks, Gloves and Boots

[4] Masks, Gloves, Boots and aprons

[8] Refused to answer

[9] Don't know/ not sure

31. Are there any reported cases of injuries related to health care waste in last 6 months?

[0] No

[1] Yes

[8] Refused to answer

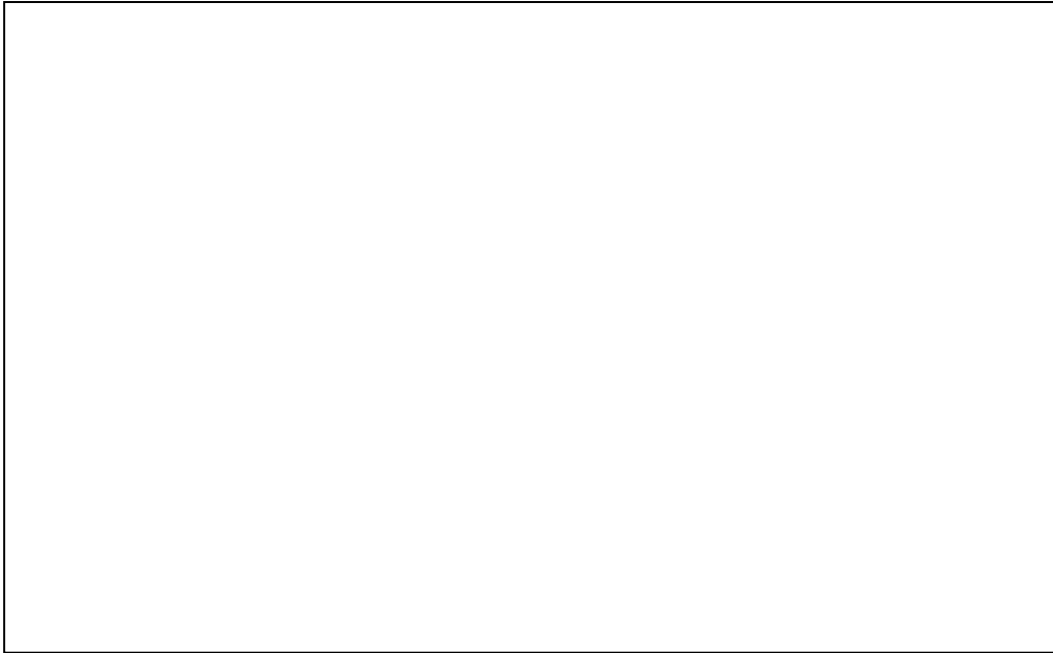
[9] Don't know/ not sure

31.1. If yes, could you describe the nature of these injuries?

(to be recorded verbatim)

32. In your view what should be done to improve the bio medical waste management system in your hospital?

(to be recorded verbatim)



Date:

**Signature
Name & Designation**