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APPENDICES

Questionnaire on universal precaution and infectious waste management.

I/D. 1 1 1 1

Interview date.....

Dear Sir/madam,

I would appreciate if you could kindly answer the following questions. Your genuine opinion and views will help this study. The information from this will be utilized only for this study and your answers will be kept confidential. The purpose of the study is to find gaps in knowledge, attitude and behavior of health care workers in infectious waste management through this questionnaire. The professionals (Doctors, Dentists, Nurses and Technicians) will answer the questions at home and return the forms to the researcher next day. The Auxiliary staff will be interviewed by trained interviewers.

Part I Socio-Demographic. Please tick \checkmark for your answer.

1. Age in years.....

2. Sex 1 Male 2 Female

3. Your education level (mark \checkmark any one that apply only)

- | | |
|--------------------------|--|
| <input type="checkbox"/> | 1. Secondary level (class xii) and below |
| <input type="checkbox"/> | 2. Higher secondary (class XII passed) |
| <input type="checkbox"/> | 3. Diploma |
| <input type="checkbox"/> | 4. Bachelor's degree |
| <input type="checkbox"/> | 5. Master's degree |

4. Job category (tick \surd one only)

- | | |
|--------------------------|---|
| <input type="checkbox"/> | 1. Auxiliary staff (ward boys and sanitary personnel) |
| <input type="checkbox"/> | 2. Technician (laboratory, dental, pharmacy, eye, ENT, OT, physiotherapy and radiology) |
| <input type="checkbox"/> | 3. Nurse |
| <input type="checkbox"/> | 4. Doctor (doctor, specialists and dentists) |
| <input type="checkbox"/> | 5. Others (please specify)..... |

5. Have you been **trained** in infectious waste management?

- | | |
|--------------------------|-------------------|
| <input type="checkbox"/> | 1. Never |
| <input type="checkbox"/> | 2. Once |
| <input type="checkbox"/> | 3. More than once |

6. How long have you been working in hospital?.....Years/months

Part II Knowledge on universal precaution and infectious waste management.**Questions 7-16.**

Please select and tick \sqrt **one best answer** for each question.

7. Which of the following waste is **not** infectious?

- 1. Blood and blood products
- 2. Used needles and syringes
- 3. Items which had contact with patients
- 4. Left over foods, fruit peels, vegetables and papers

8. Hospital waste is **different** from household wastes because.....

- 1. Wastes produced is massive in amount
- 2. Wastes are contaminated with infectious materials and also contain hazardous materials.
- 3. Wastes contains various types of materials
- 4. Wastes materials decay easily

9. Before transporting infectious wastes from the wards to the hospital waste store room, one of the following needs to be **done**.

- 1. Waste bag should be firmly closed when 3/4th full.
- 2. Waste bag is closed firmly when it is full.
- 3. Waste bag is closed firmly when it is half full
- 4. Waste bag is closed after pushing as much waste as possible into the bag.

10. The **correct way** of carrying the infectious waste bags from the wards to the cart is

- 1. Lift the bag at the top and carry it safely to the cart without dragging.
- 2. Catch the bag at the top and drag it till the cart.
- 3. Lift and hold the bag between the arms and the chest.
- 4. Lift and carry the bags on the top of your head.

11. The cart that is used for carrying infectious waste is.....

- 1. Washed every day after work.
- 2. Washed once a week.
- 3. Washed only when it is dirty.
- 4. Not washed as it is used to carry wastes anyway.

12. If there is **fallout** (spill) of infectious waste, what would you do?

- 1. Leave it there as some one will do the cleaning later when there is time.
- 2. Pickup the waste carefully and continue the work that you were doing.
- 3. Pickup the waste, pour disinfectant and clean the area with water after ½ an hour.
- 4. Pickup the waste and clean the area immediately with water.

13. The following protective equipment are **required** before handling infectious Waste except.....

- 1. Thick strong rubber gloves.
- 2. Plastic apron
- 3. Gum boots
- 4. Thick white shirt

14. After the infectious waste bags are removed from wards, it can be **stored**.....

- 1. Where ever there is space within hospital facility.
- 2. Near the wards safe from dogs.
- 3. In a designated safe area inside the health facility.
- 4. Just outside the hospital boundary wall.

15. Infectious wastes are made non- infectious by any of these methods except by.....(tick ✓ **the wrong one**).

- 1. Incineration.
- 2. Chemical disinfection.
- 3. Autoclaving.
- 4. Fermentation.

16. People who are **at risk** of infection from infectious waste are.....

- 1. Doctors, dentists and nurses.
- 2. Technicians, ward boys and sweepers.
- 3. All of above
- 4. None of above

Part III. Attitude towards infectious waste management.

Please read the statements and mark \checkmark on the **best answer** according to your attitude.

Sl. No	Statement	Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
17	Health workers have crucial role in the proper management of infectious wastes.					
18	Having different waste bags for different category of wastes makes your work difficult					
19	Needle should be recapped before throwing in the sharps container.					
20	It is necessary to wear gloves before handling infectious wastes.					
21	The cart used for carrying infectious waste can be cleaned and used for carrying other things too.					
22	The cart for carrying infectious waste should be cleaned daily after work					
23	Closing the infectious waste bags when 3/4 th full will make your working environment safer.					
24	Infectious waste should be transported through the shortest and safest possible route.					
25	The transport route of infectious waste should be well known among the hospital staff.					
26	Infectious wastes can be stored where ever there is space in the hospital.					

Part IV Behavior in infectious waste management.

Please read the statements and mark \surd on the **best answer** of your choice.

Sl.no.	Statement	Always 5	Often 4	Sometimes 3	Seldom 2	Never 1
27	You wear gloves before handling patients and infectious wastes.					
28	In emergency situations, you forget to wear personal protective measures.					
29	You recap needles after use and then throw in the sharps container.					
30	You wash your hands after handling patients or infectious wastes.					
31	You close the infectious waste bags when 3/4 th full.					
32	You drag the infectious waste bags while transporting from ward to the cart.					
33	You are careful when walking on the route meant for transport of infectious wastes.					
34	You make sure that the infectious waste bag is not torn or punctured before transportation to the store.					
35	After fall out (spill) of infectious waste, you pickup the waste and throw it in the infectious waste bag, disinfect and clean the area.					
36	You report accidental injuries sustained during handling of patients or infectious wastes.					

Part V It consists of two sections, Policy and deployment of policy, and recommendations.

Section A. Policy and deployment of policy on infectious waste management.

Please read the statements and mark \checkmark on the **best answer** according to your perception.

The rating numbers have following meaning:

1 least important

2 less important

3 neutral

4 important

5 very important

Sl. No.	Statement	1	2	3	4	5
37	How important it is to you legislation on the hospital waste management?					
38	How important is infectious waste management policy of the hospital to you?					
39	How important is a manual/guideline on infectious waste management?					
40	How important is waste management team for the hospital?					
	Deployment of policy	X	X	X	X	X
41	How important is clearly defined procedures for collection and handling of infectious wastes ?					
42	How important it is to include waste management responsibilities in your job description?					
43	How important is waste management training to you?					
44	How important is availability of personal protective equipment for you?					
45	How important is availability of red plastic bags for infectious waste and yellow box for sharps for proper management of infectious waste?					

Section B. Please give **two important recommendations for proper management of infectious waste.**

46.
.....
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47.
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.....

Signature and date.

Interviewee/interviewer.

Curriculum Vitae

Dr. Ugen Dopfu was born in Paro Bhutan on 2nd February 1961. He obtained his M.B.B.S degree (Bachelor of medicine and surgery) from Dhaka University Bangladesh in March 1988. He attained his Diploma in Tropical Medicine from Karolinska Institute, Stockholm, Sweden in 1992 and Diploma in STD/AIDS from Prince of Songkha University, Thailand in 1998.

He joined Royal Government of Bhutan in August 1988 and served as general duty medical officer and as district medical officer in various districts. He became deputy medical superintendent in 2000 and superintendent in 2003 of the national referral hospital, Thimphu, Bhutan.

Once back in Bhutan, he will serve the Royal government of Bhutan as medical Director of the National referral Hospital.