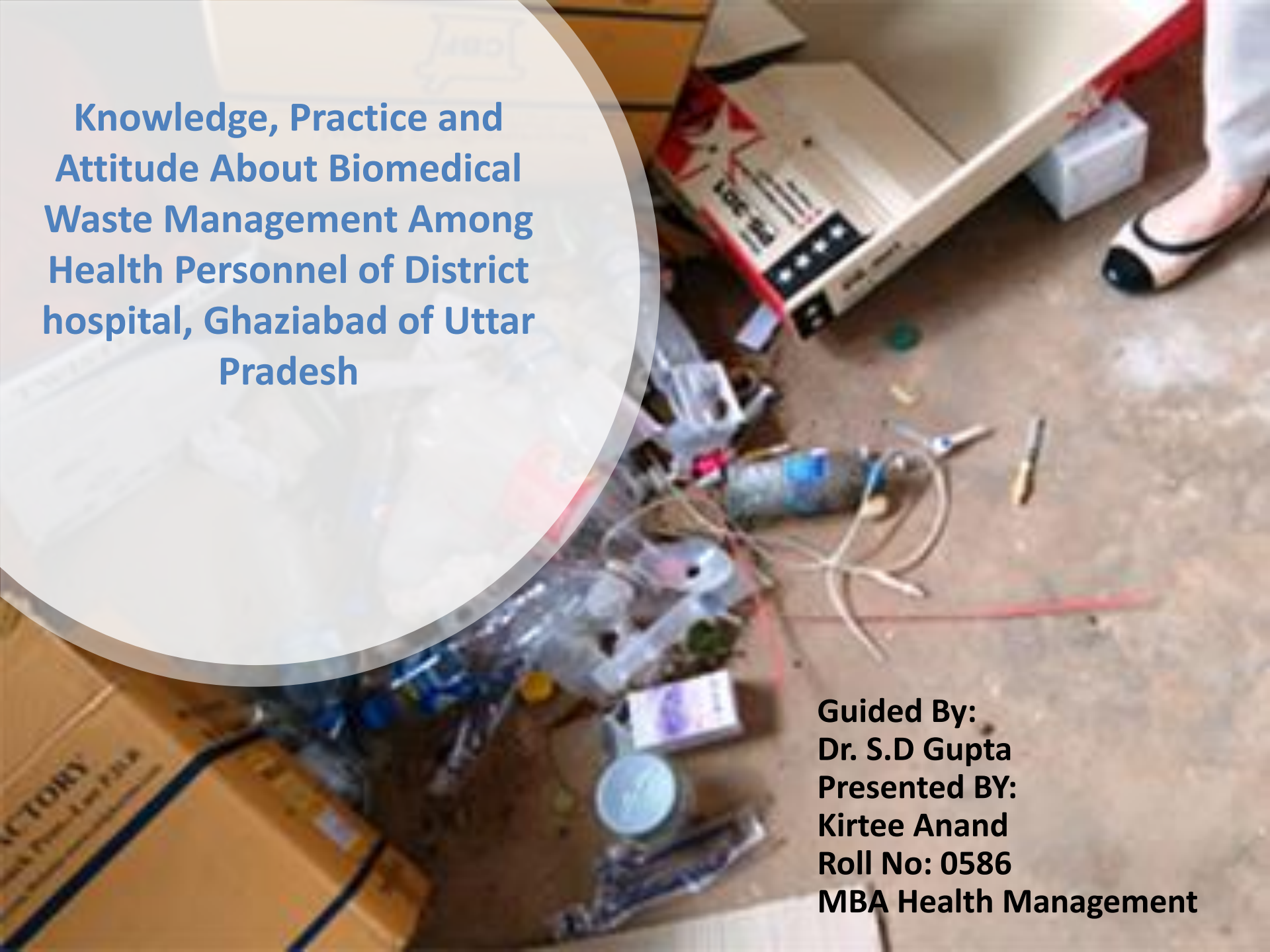


The background image shows a cluttered floor with various medical waste items, including plastic syringes, a blue bottle, and other debris. A person's leg and foot in a white sock and black shoe are visible in the upper right corner. A large, semi-transparent white circle is overlaid on the left side of the image, containing the title text.

Knowledge, Practice and Attitude About Biomedical Waste Management Among Health Personnel of District hospital, Ghaziabad of Uttar Pradesh

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- The background of the slide features abstract, overlapping green geometric shapes, primarily triangles and polygons, in various shades of green, creating a modern and dynamic visual effect.
- ❖ Introduction
 - ❖ Rationale of the study
 - ❖ Research question
 - ❖ Objectives
 - ❖ Methodology
 - ❖ Analysis
 - ❖ Conclusion
 - ❖ Recommendations

Introduction

It is defined as “any waste, which is generated during the diagnosis, treatment or immunization of human beings or animals or research activities pertaining thereto or in the production or testing of biological or in health camps, including the categories mentioned in Schedule I appended to BMW rules 2016”

“Any solid and/or liquid waste including its container and any intermediate product, which is generated during the diagnosis, treatment or immunization of human beings or animals”.

Rationale

- ▶ Although, there is an increased global awareness among health professionals about the hazards and appropriate management techniques but the level of awareness in India is found to be unsatisfactory.
- ▶ It is vital to point out for several reasons, there is substantial uncertainty around this estimate and more research and data are needed to obtain a reliable picture of this situation. Health personnel have an important role in managing the bio-medical waste through their knowledge, attitude and practices (KAP).
- ▶ India after 30 years of making of bio-medical waste management rules there is poor hospital waste management situation everywhere in our country. This indicates the urgent need to assess KAP of Health personnel, so that we can do some intervention. Hence this study is planned to find out level of KAP of Health personnel about BMW in district hospital, Ghaziabad of Bihar state

Research question

- ▶ To check the level of Knowledge, attitude, and practices about biomedical waste management among doctors, nurses, laboratory technicians, and housekeeping staff?

Objectives

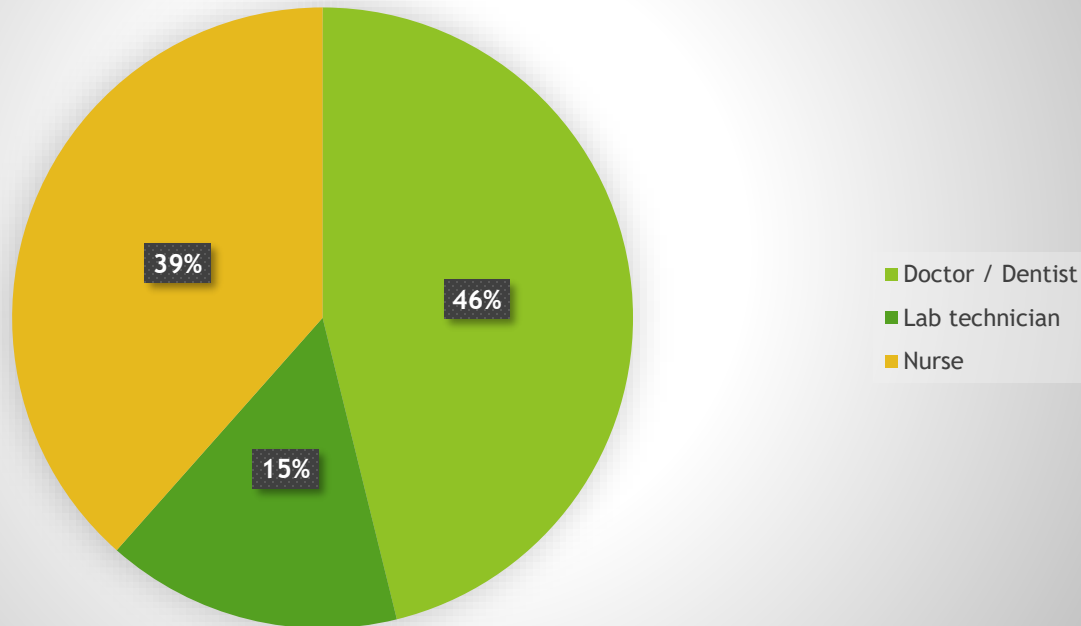
- ▶ to find out level of knowledge, attitude, and practices of doctors, nurses, laboratory technicians, and sanitary staff regarding biomedical waste management
- ▶ to identify factors responsible for non-compliance to biomedical waste management protocols
- ▶ to develop suggestions to improve compliance to biomedical waste management protocols

Methodology

- ▶ This is an observational cross-sectional study that was conducted in MMG district hospital of Ghaziabad of Uttar Pradesh having biomedical waste management in their hospital premises among health personnel. This study was conducted from 18th Feb to 17th May 2019.
- ▶ **Study Population:** Doctors, Nurses, Lab technician, House Keeping staff
- ▶ **Exclusion criteria:** Pharmacist, MIS team and other non-clinical staff
- ▶ **Study tools:** Closed ended Questionnaire
- ▶ **Sampling technique:** Non-probability Sampling (purposive sampling)
- ▶ **Data collection procedure:** Observation of disposal of biomedical waste and checking color coded container material and self-administrative questionnaire was sent to doctor, staff nurse lab technician and housekeeping staff at their WhatsApp number.

Analysis of Study

Percentage of type of Personnal in District Hospital, Gzb(N=52)



Knowledge of biomedical waste generation, hazards and legislation

Questions based on biomedical waste legislation

- ▶ 1. Do you know about BM waste generation and legislation
- ▶ 2. Do you think it is important to know about BM waste generation, hazards and legislation?
- ▶ 3. Biomedical Waste (Management & Handling) Rules were first proposed in?
- ▶ 4. Amendments to the Biomedical Waste (Management & Handling) Rules were made in?

Questions based on biomedical waste hazards

- ▶ 1. According to the Biomedical Waste (Management & Handling) Rules, waste should not be stored beyond?
- ▶ 2. Who regulates the safe transport of medical waste?
- ▶ 3. Do you need a separate permit to transport biomedical waste?
- ▶ 4. One gram of mercury (source from dental amalgam) is enough to contaminate the following surface area of a lake

Questions based on biomedical waste generation?

- ▶ 1. Which statement describes one type of BM waste?
- ▶ 2. What agency(ies) regulate(s) wastes generated at health care facilities?

Findings on knowledge of biomedical waste generation, hazards and legislation among health care personnel questions

Health Personnel	Scoring Criteria		
	Excellent	Good to average	Poor
Doctor/ Dentist	30%	45%	25%
Nurses	14%	50%	36%
Lab technician	15%	45%	40%

Excellent: 8 correct answers out of 10

Good to average: 4-7 correct answers out of 10

Poor: <4 correct answers out of 10

Questions based on awareness of biomedical waste

- ▶ 1. Do you know about colour-coding segregation of BM waste?
- ▶ 2. Do you follow colour-coding for BM waste?
- ▶ 3. Is the waste disposal practice correct in your hospital?
- ▶ 4. Objects that may be capable of causing punctures or cuts, that may have been exposed to

blood or body fluids including scalpels, needles, glass ampoules, test tubes and slides, are considered biomedical waste. How should these objects be disposed of?

- ▶ 5. Documents with confidential patient information are to be disposed of into the paper

recycling bins.

- ▶ 6. The colour code for the BM waste to be autoclaved, disinfected is
- ▶ 7. The approximate proportion of infectious waste among total waste generated from a health

care facility is

- ▶ 8. The colour code for disposal of normal waste from the hospital is
- ▶ 9. All the following steps should be followed on exposure with infected blood/body fluid

and contaminated sharps EXCEPT:

- ▶ 10. All the following statements about hazardous waste containers are true, except for

Findings on awareness of biomedical waste questions

Health Personnel	Scoring Criteria		
	Excellent	Good to average	Poor
Doctor/ Dentist	20%	45%	35%
Nurses	16%	48%	36%
Lab technician	5%	60%	35%

Excellent: 8 correct answers out of 10

Good to average: 4-7 correct answers out of 10

Poor: <4 correct answers out of 10

CONCLUSION

- ▶ By this study it can be concluded that knowledge and awareness about BM waste generation hazards, legislation and management among doctors, lab technicians and nurses in the district hospital, Ghaziabad, India is low. Available literature suggests that this is a common problem in many other health care institutions in both India and other countries.
- ▶ They have lots of work and they think this is the work of housekeeping staff.
- ▶ Continuous monitoring and training are required at all levels of hospital

Suggestions

- ▶ Training of health care workers should be conducted at the regular interval, so that knowledge, attitude and practices of Health care personnel on BMW management are maintained and quality of patient care is improved.
- ▶ Providing of small litters bins close to the place where the waste is generated but in the enclosed area to avoid the chances of spreading the infection in the vicinity of hospital