DISSERTATION REPORT

AT

District Hospital, Hoshiarpur,

Punjab

SUBMITTED BY:

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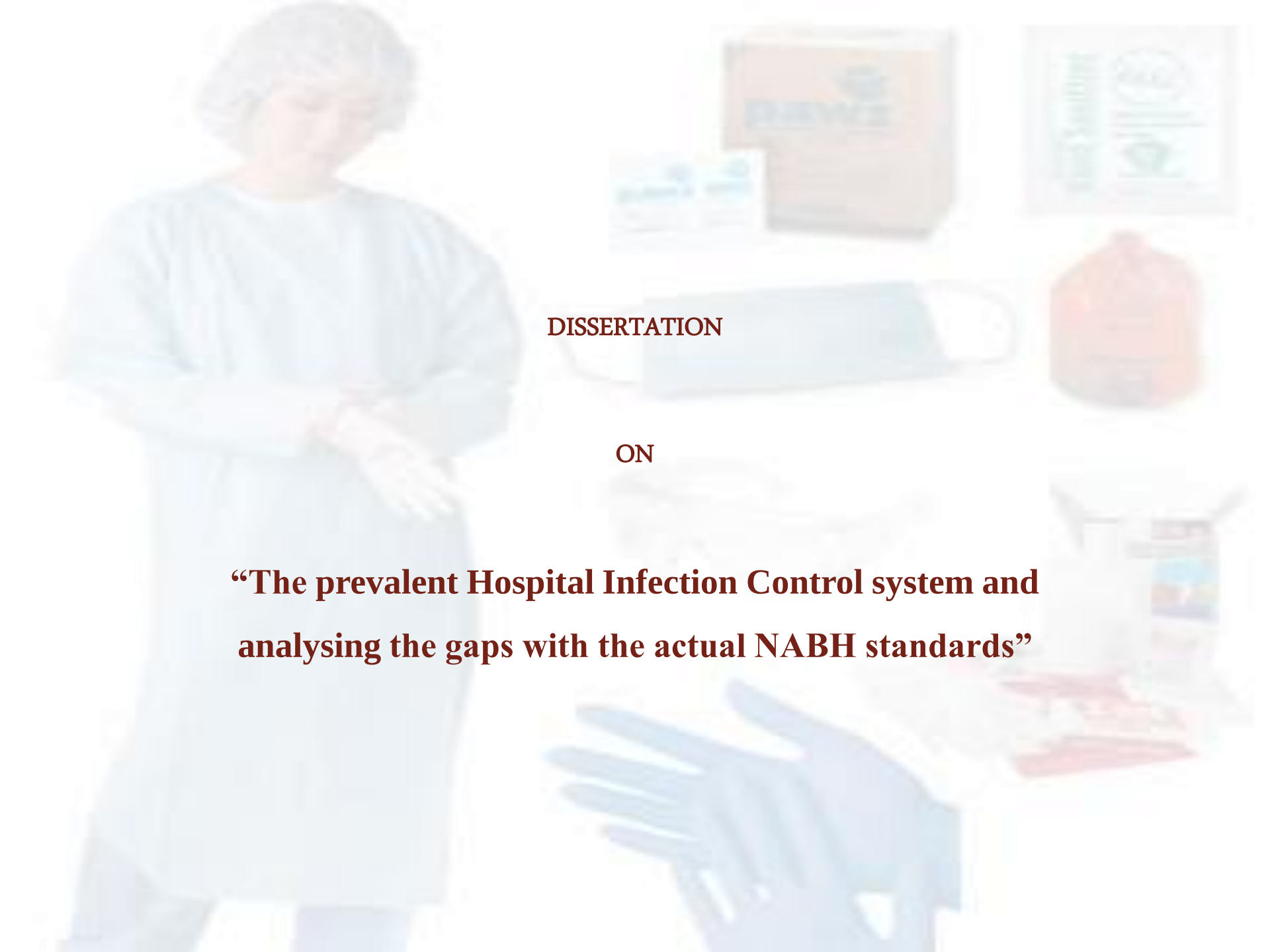
ROLL NO. 1340

PGDHM-17

INTRODUCTION

DISTRICT HOSPITAL, HOSHIARPUR, PUNJAB

- It is a 200 functional bedded hospital situated on an easily accessible area from nearest road head.
- This healthcare centre was started in late 90’s.
- It is a double story building.



DISSERTATION

ON

“The prevalent Hospital Infection Control system and analysing the gaps with the actual NABH standards”

INTRODUCTION

- Infection control is the discipline concerned with preventing nosocomial or healthcare-associated infections.
- Infection control addresses factors related to the spread of infections within the health-care settings including prevention (via hand hygiene/hand washing, cleaning/disinfection/sterilization, vaccination, surveillance), monitoring/investigation of demonstrated or suspected spread of infection within a particular health-care setting (surveillance and outbreak investigation), and their management (interruption of outbreaks).
- Nosocomial infections affects approximately **2 million** patients annually in acute care facilities in our country and their annual patient care costs several millions of rupees.
- Studies shows that nearly **one-third** of nosocomial infections can be prevented by a well organised infection control programme. But only **less than 10%** are actually prevented.

HIC CHAPTER OF NABH

- The 3rd edition of NABH, has nine standards related to the Hospital Infection Control chapter.
- These nine standards are further divided into various objective elements which are 50 in total.
- The nine standards of HIC chapter are as follows:

- HIC.1: The organization has a well-designed, comprehensive and coordinated **Hospital Infection Prevention and Control (HIC) programme** aimed at reducing/ eliminating risks to patients, visitors and providers of care.
- HIC.2: The organization implements the policies and procedures laid down in the **Infection Control Manual.**
- HIC.3: The organization performs **surveillance activities** to capture and monitor infection prevention and control data.
- HIC.4: The organization takes actions to prevent and control **Healthcare Associated Infections (HAI) in patients.**
- HIC.5: The organization provides adequate and appropriate **resources for prevention and control of Healthcare Associated Infections (HAI).**
- HIC.6: The organization identifies and takes appropriate action to **control outbreaks of infections**.
- HIC.7: There are documented policies and procedures for sterilization activities in the organization.
- HIC.8: **Biomedical waste (BMW)** is handled in an appropriate and safe manner.
- HIC.9: The infection control programme is supported by the management and **includes training** of staff.

OBJECTIVES

A) General Objectives:

- To monitor the prevalent hospital infection control system.

B) Specific objectives:

- To find out the gap between the NABH Hospital Infection control standards and the prevalent standards in the hospital;
- To find out the factors responsible for the low compliance with the existing standards;
- To suggest measures to improve the compliance with the existing standards.

RESEARCH METHEDOLOGY

- **TYPE OF STUDY**:

  A two phase- descriptive study consisting of an observational monitoring in the high risk areas of the hospital with the help of NABH checklist to note the compliance and studying the relevant record.

- **LOCATION OF STUDY:**

  District Hospital, Hoshiarpur, Punjab.

- **DATA TO BE COLLECTED**:

- **Primary Data**:

  Data collected from the wards, OT and the OPD regarding the compliance with the NABH checklist for hospital infection control.

  Process of hand hygiene practice, BMW segregation at source, were observed and filled in person in every ward so as to monitor and analyze the compliance rate. All high risk areas (OT's) of the hospital were directly observed and target areas were individually studied by observing a set of activities performed by doctors, technicians, para-medical staff and other non-clinical staff.

- **Secondary Data:**

  The records in reference to HIC in hospital for last 3 months were checked and monitored.

❖ DATA COLLECTION TOOL:

Primary data was collected through:

- The NABH checklist on the chapter on Hospital Infection Control.
- Direct observation and discussion with the staff regarding the various standards mentioned in the checklist.
- Hence forth, the compliance was checked with the various standards and given scores as 0,5,10 based on the existing standards in the hospital.

Secondary data was collected through:

- The records in reference to HIC in hospital for last 3 months were checked and monitored.

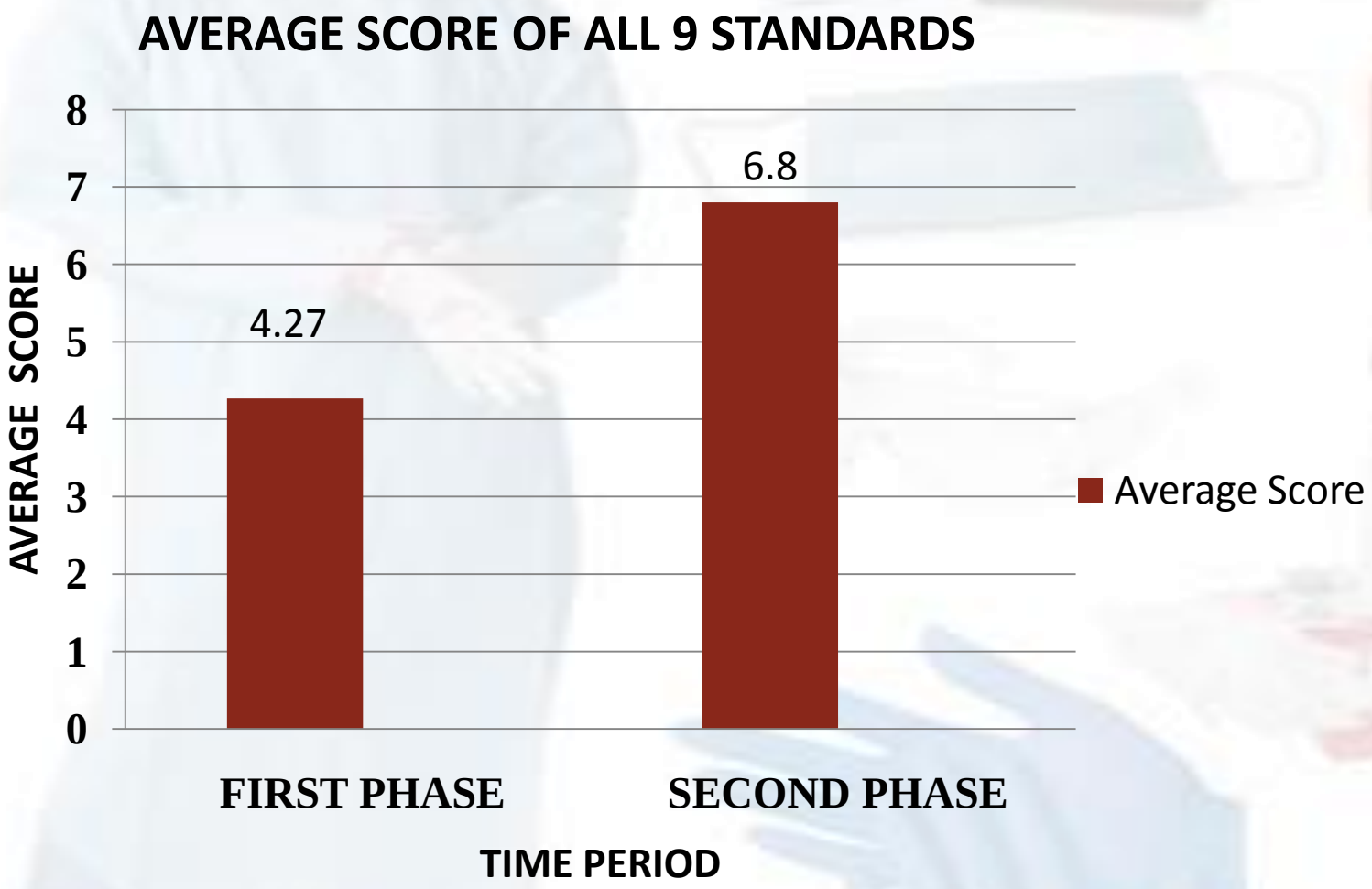
KEY STUDY FINDINGS :

❖ The entire study was divided into two halves:

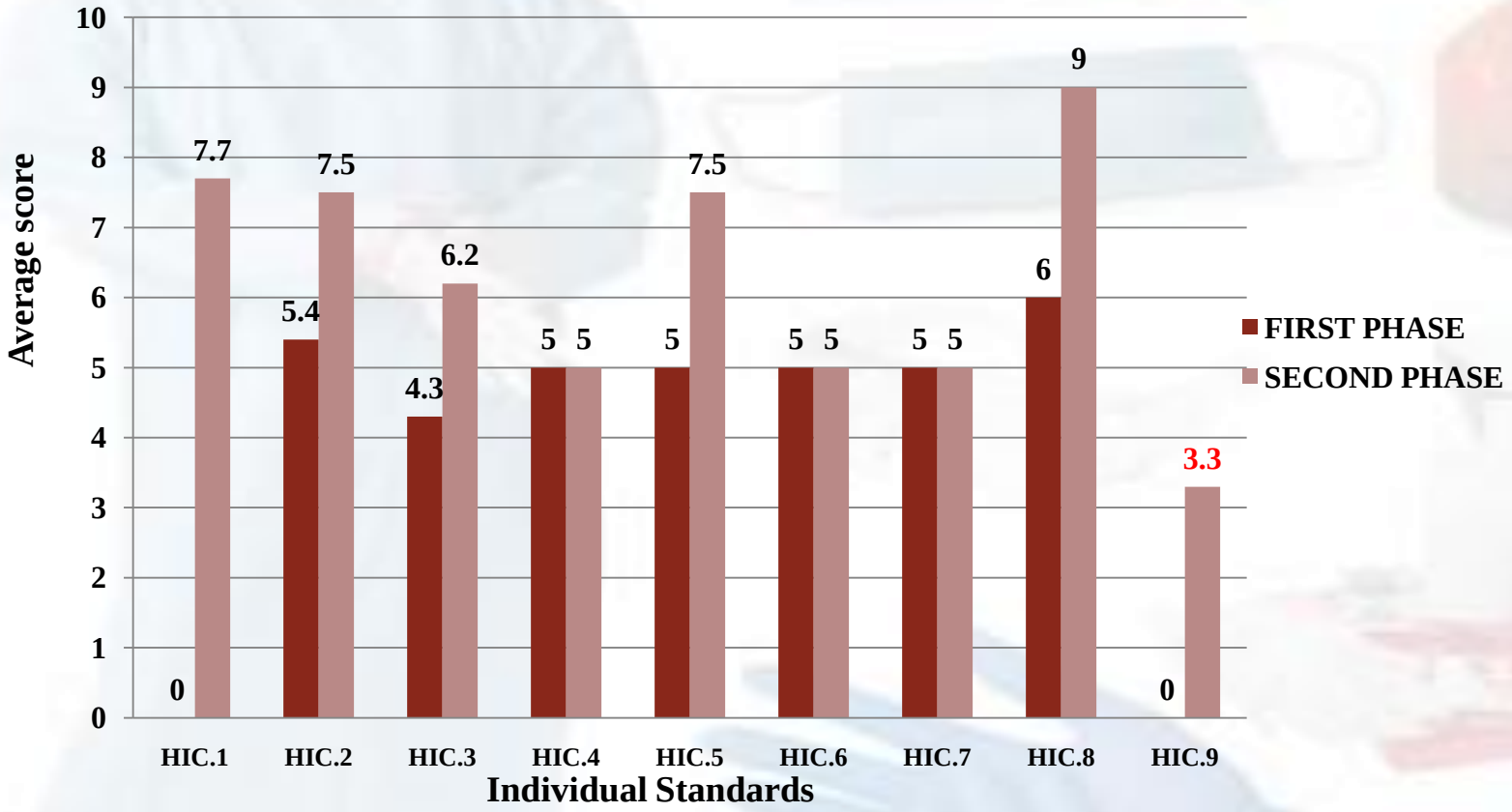
- The first phase (collected in the initial period of the internship that is in the month of February).
- The second phase (collected in the month of April, after giving some suitable recommendations).

The checklist which was used to analyse the data consisted 9 standards on the Hospital Infection Control chapter. These standards had further objective elements which were checked for compliance.

PERIOD	AVERAGE SCORE OF ALL 9 STANDARDS
FIRST PHASE	4.27
SECOND PHASE	6.80


AVERAGE SCORE OF ALL 9 STANDARDS
AVERAGE SCORE
8
7
6
5
4
3
2
1
0
4.27
6.8
FIRST PHASE
SECOND PHASE
TIME PERIOD
Average Score

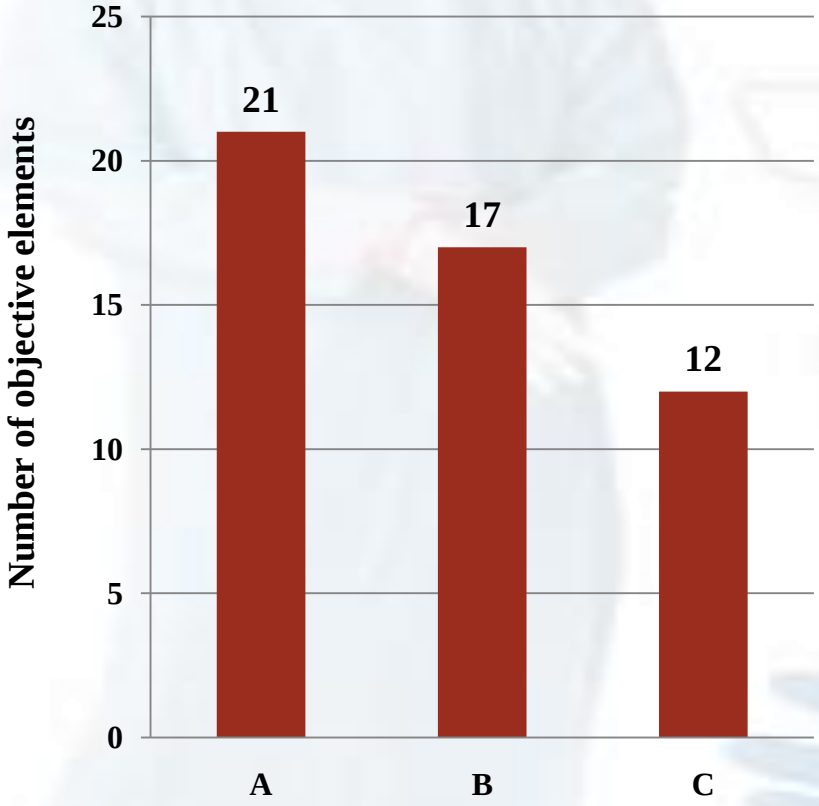
Average Scores for the various standards in First and Second phase of the study



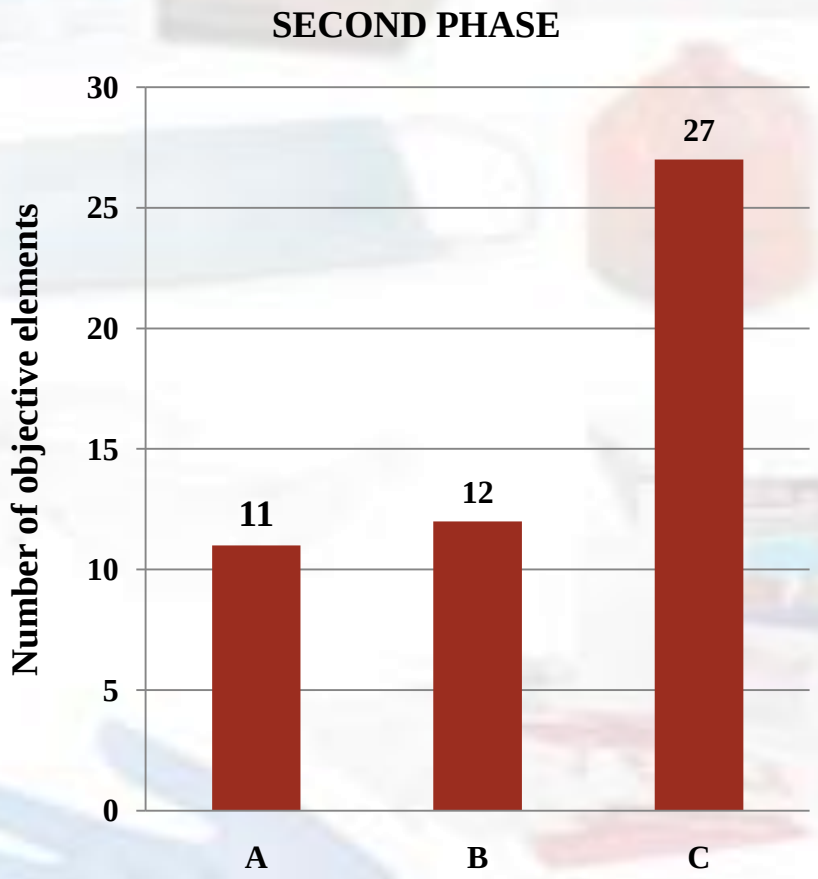
*0 here refers to non-compliance with the standard

* The bar marked in red shows that the average score did not exceed 5 even in the second phase.

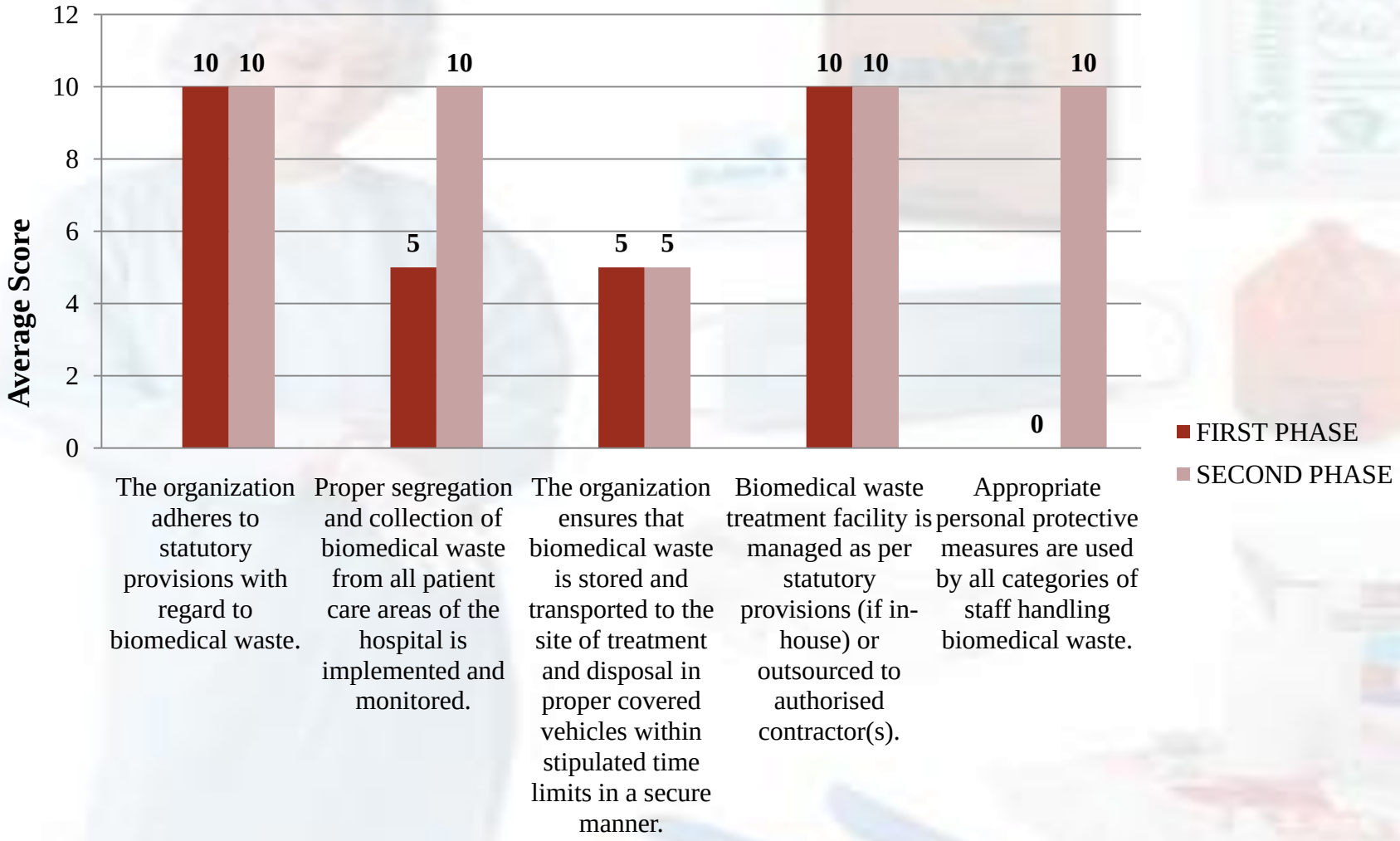
The distribution of compliance scores amongst various objective elements



Where A= Score0; B= Score 5 and C= Score 10
where 0 means no compliance seen



Where A= Score 0, B=Score 5 and C= Score 10
where 0 means no compliance seen



Individual Objective element of HIC.9

This graph depicts that the maximum change in average score for HIC.8 (BMW management) was seen amongst the two phases. The average score changed from 6 to 9 for this standard.

- checklist for project.xlsx

STANDARDS	RECOMMENDATIONS	IMPLEMENTATIONS	LIMITATIONS
HIC.1.	The formation of a multi-disciplinary infection control committee which co-ordinates all infection prevention and control activities.	Formed and implemented.	No designated post for infection control nurse, so given the charge to the matron in-charge.
HIC.2.	•Formation of an Infection Control Manual. •Adherence to proper hand hygiene guidelines. •Establishment of appropriate antibiotic policy. •Handing over the charge of linen distribution across various departments to the matron.	•Formed and implemented. •Implemented and checked on daily basis. • Formed and implemented. •Not implemented.	•No supply of hand rub due to monetary reasons. •Lack of interest to take the authority and responsibility by the matron. •Lack of inter-communication between laundry man, matron and staff nurses.
	•Proper PPE made available to class IV workers and sweepers. •Providing proper cleaning aids and agents to the workers.	•Implemented and provided regularly. •Not implemented.	•Lack of interest of the higher authorities •Resistance to change by the housekeeping staff.
	•Regular trainings of the housekeeping staff and fixing proper timings for cleaning.	•Provided weekly and monitored.	

STANDARDS	RECOMMENDATIONS	IMPLEMENTATIONS	LIMITATIONS
HIC.3.	•Maintaining a record of the infection rates prevalent in the hospital. •Regular monitoring of the housekeeping services by the housekeeping supervisor. •Forming a checklist and placing it in the washrooms to keep a check on the working of the staff •Supervision of proper hand hygiene guidelines by maintaining a register	•Not implemented. •Implemented and followed. •Implemented and followed. •Implemented and followed.	•Lack of knowledge amongst the staff regarding the calculation of rates leading to lack of initiative.
HIC.5.	• Formation of a needle stick injury record register. •Vaccination of the entire staff and mainly the housekeeping staff.	•Implemented but not followed. •Implemented but not followed	•Resistance of the staff and lack of initiative.

STANDARDS	RECOMMENDATIONS	IMPLEMENTATIONS	LIMITATIONS
HIC.8	•Supervision of proper segregation according to the colour coding on a daily basis. •Availability of wheel burrows for carrying the waste bags from the departments to the collecting room. •Providing proper bins in the departments by replacing all the net buckets and broken bins. • Marking bio-hazard sign on the bins. •Fixing a time when the housekeeping staff of all the departments should collect, segregate and keep the waste in the collecting room. •Availability of proper PPE material to all the staff dealing with the handling and collection of bio-medical waste.	•Implemented and followed •Implemented and followed •Implemented and followed •Done •Followed on regular basis •Regularly supervised and housekeeping supervisor assigned the responsibility of proper availability of PPE.	

MEMBERS OF THE INFECTION CONTROL COMMITTEE

- Senior Medical Officer In-charge
- In-charge Laboratory
- Hospital Administrator
- In-charge Pharmacy
- Infection Control Nurse
- Infection Control Officer(pathologist)


DISPOSAL OF HOSPITAL WASTE AS PER COLOUR CODING
Colour
Type of Waste
YELLOW BAGS
ALL CONTAMINATED WASTE
ALL ANATOMICAL & LAB WASTE
BLUE BAGS
PLASTIC WASTE
NO GLASS AND SHARPS PLEASE
WHITE BAGS
UNBROKEN GLASS WASTE
NO SHARPS PLEASE
DISCARDED SHARPS
BROKEN GLASS, SCALPELS, BLADES, NEEDLES, SLIDES, LANCETS, CUT GLASS & OTHER SHARPS THAT CAN CUT OR PUNCTURE
RAINBOW ENVIRONMENTS


ELECTRICAL SHAFT
WAITING AREA


SEGREGATION

HAND WASHING TECHNIQUES
j ÆKBfXD d/sohe/

WET BOTH HANDS BEFORE APPLICATION OF SOAP (LIQUID IS PREFERABLE). FOLLOW THE TECHNIQUES BELOW FOR 15-30 SECONDS ENSURING THAT E4ACH STEP CONSISTS OF AT LEAST THREE STROKES BACKWARDS AND FORWARS

;kpD (sob bJhokJ/fdzhikdhj? brkTD s'Agfjbkdt Aj Æ frØ/eo'. fBu/fdz/sohe/Bf 15^30 ;fe NKtk s/ngDkT[fJj : ehBhpDkTN/j'J/fe jo ;N@ fsB tko fgS/tØ ns/nÆ/ tØ tos'.

gVkt 1
j EbhBf j EbhBko or V'

gVkt 2
;i hj Ebhyø/j Æ d/fgSb/gk,/ns/yøh j Ebh;Æ/j Æ d/fgSb/gk,/

gVkt 3
j EbhBf j EbhBko, wVhnKj'Jhn Kns/pk,o tØ Bfcøhn Kj'Jhn KT[AbK

gVkt 4
T[AbKd/fgSb/gk,/d{/j Æ dhj Ebhko, rø/j'J/T[ZbKBko

gVkt 5
yø/j Æ d/nzfm/dhx[Wt dko or VkJh;Æ/pø j Æ d/nøo, fJ;/soKd{k

gVkt 6
;Æ/j Æ dhnKT[ZbKdhnKuNhnKdhyø/j Æ dhj Ebhs/x[Wt dko or VkJhfgS/tØ ns/nÆ/tØ, fJ;/soKd{k

nyho ftZu, uzhsoKj Æ Xt'ns/;kc eo'.

fczofNg;, nz{mnKns/j Æ d/j o fjZt;nk, fi Æ/fe rø tr/k Sfgnk jt/ tZo yk, fXnkB dDkukjhdkj? j Æ PfX gkDhftZu XD/ukjhd/jB. uwVhBf Bf;kB s'ApukT[bJhj Æ ;ekT[N/j'J/gfgo sbhJ/dkfJ; s/Wkb fXnkB Bko eo'. nro tko tko j Æ X'J/rJ/jB, skfvT{Nhysw jD s/eohw dkfJ; s/Wkb eo' sKfe j ÆKBfy[Pe jD ns/sfy[Ks'ApukfJnkik ;e/

CONCLUSION

After analysing the findings of the first and the second phase the following conclusions were drawn:

- There was an evident increase in the average score of all the standards from 4.27 to 6.8
- Standards like HIC.1 and HIC.9 showed no compliance in the first phase of the study which was observed to be 7.7 and 3.3 respectively in the second phase of the study.
- The number of objective elements showing full compliance were increased from 12 to 27.
- Most of the recommendations given were implemented for the standard dealing with Bio-Medical Waste management, therefore, HIC.8 showed the maximum average score in the second phase (9).


THANK
YOU