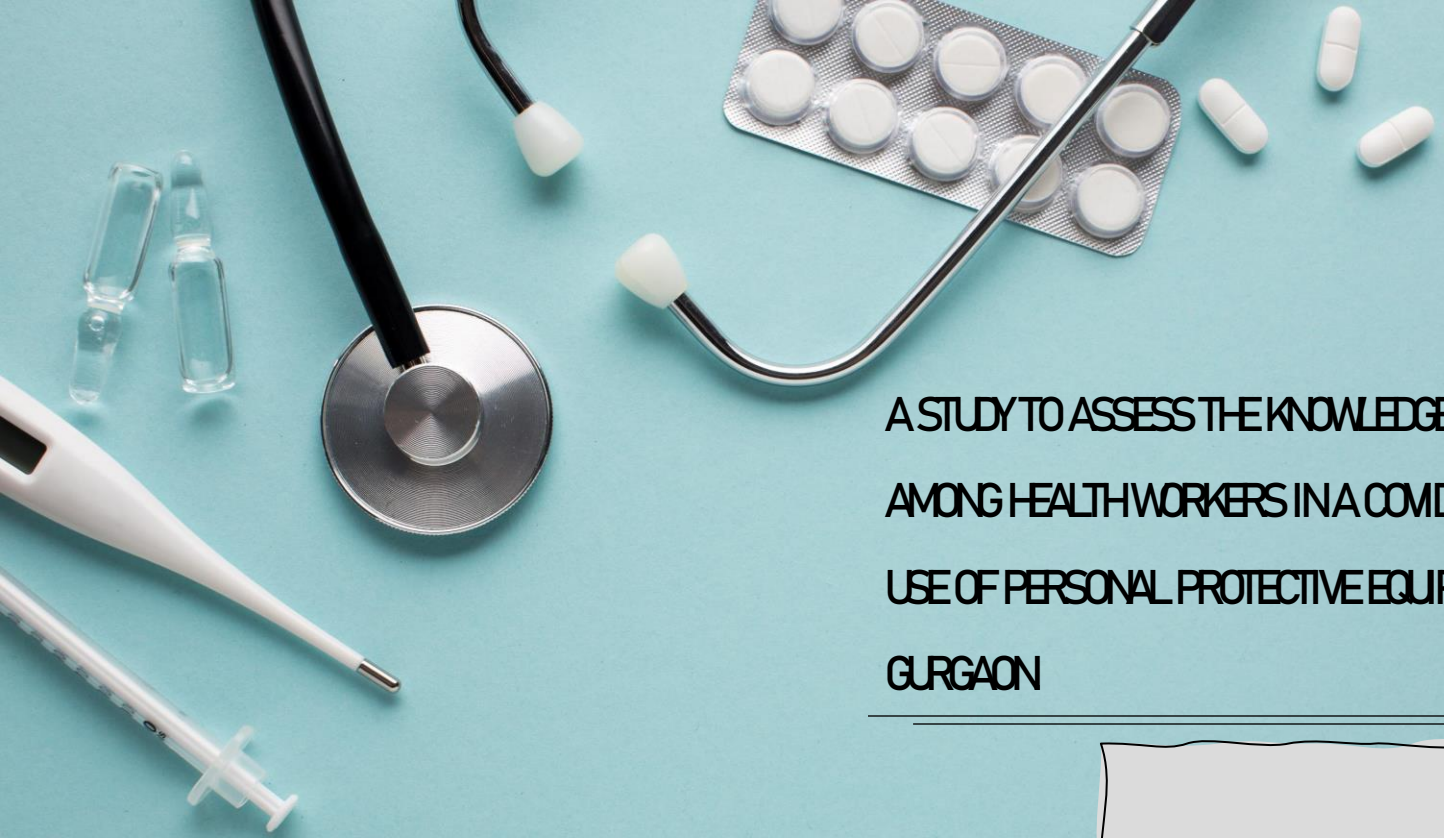


A STUDY TO ASSESS THE KNOWLEDGE, ATTITUDE AND PRACTICES AMONG HEALTH WORKERS IN A COVID WARD TOWARDS RATIONALE USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE) IN MEDANTA, GURGAON

PRESENTATION BY:

DR. RITIMA GARG (MBA-HM25-1178)

UNDER THE GUIDANCE OF:

DR. SUSMIT JAIN, ASSOCIATE PROFESSOR & MENTOR, IIHMR UNIVERSITY

PART-1

OBSERVATIONAL LEARNNG

ABOUT MEDANTA, THE MEDICITY

- Medanta, The Medicity, Gurgaon established in 2009 is voted as the best private hospital in India by news week. It started with a vision that came to Dr Naresh Trehan, while practicing surgery at NYU Medical centre in USA. He realized India needs a multispecialty hospital which not only treats but even trains and innovate, matching the international standard of technology, infrastructure, care, and fusion of Indian tradition with modern medicine.

GENERAL FINDINGS

Operations- Floor Manager

- Floor manager starts the day with **Safety hurdle**, also known as 5 minutes briefing with nursing supervisor, clinical pharmacist, dietician, GDA and security. The discussion involves information about high-risk patient, elderly patients.
- Checking all the **Night Billing Patients,** requirements are on track such as 12 AM billing activity is sent or not by the nursing staff, ensure with the medical transcriptor about the readiness of the discharge summary, Sending the final discharge summary to the TPA desk in case of TPA (insurance) beneficiary patients and shifting the patient on pseudo bed (D/S lounge) after the counselling of the patient and the attendants.
- **Meeting all the new admission and transfer- ins** from different wards from last evening. Ensure that the instructions are given to the patient such as giving them the room orientation which includes the call bell for nursing staff.
- **Patient rounds** are done least one a day to clarify any patient concerns or queries, billing counselling/ interim bills which are required. Addressing any complaints regarding the nursing staff, dietician, housekeeping, doctors, MS office as required
- **Physician rounds** for knowing the discharge plan to promote the planned discharge, convey any pending bills or billing concerns to admitting doctors/ Chairpersons. Convey any patient dissatisfaction relating to the clinical care or need of more counselling to the physician team.

- **Discharge management:** Ensuring timely discharge by checking timely submission of billing activity to the billing department, preparation of discharge summary by the medical transcriptor and checking by the doctors, timely return of the medication to the pharmacy and follow up with the billing for the billing delays. **Day minus 1 counselling** to the attendants/ patients a day prior to the discharge regarding the process, time, and clearance.
- **LAMA Management:** Counselling of the patient who are leaving against the medical authority. Sending the daily reports of total discharge, LAMA, and mortality of last 24 hours of respective areas to MS office
- **Financial issues**– financial clearance, TPA, CGHS: Ensuring financial clearance before any procedures or expensive medications. Coordinating financial clearance for patients with emergency procedures with negative financial balances.
- **Bed Management:** Arranging bed shifting of the patient from ER to ICUs/Ward, OTs to ICUs, ICUs to Wards/HDU in coordination with admission desk.
- **Infection control**: Getting the restricted antibiotic justification form filled by the prescribing physician and doing hand hygiene shadow audits at the EMR application.
- **Quality and accreditation:** Ensuring completeness of the medical records for the doctors, physiotherapists, and dieticians, Collect and analyze the outcomes data for their specialty.

PART-2

PROJECT REPORT

A COMPARITIVE AND OBSERVATIONAL STUDY TO ASSESS THE KNOWLEDGE, ATTITUDE AND PRACTICES AMONG HEALTH WORKERS IN A COVID WARD TOWARDS RATIONALE USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE) IN MEDANTA, GURGAON.

INTRODUCTION

- As per reports stated on 26th May'2021 India has encountered 26 million Covid-19 patients ranked second after US. It is the new hub of the COVID pandemic. The second wave recently has been overwhelming to the healthcare system, leaving hospitals struggling to cope up with this crisis and shortage of critical drugs and oxygen supply.
- Healthcare specialists are more susceptible to COVID-19 contamination than the common people as they frequently encounter contaminated people.

- PPE is a defensive wear to protect the wellbeing of workers as they minimize the exposure to any viral or bacterial agent.
- PPE kits contain aprons, gowns, hoods, masks, eye wears, and face covers, to protect the different skin membranes of the person who is wearing from getting infected, and N95 masks or respirators from preventing breathing of contaminated particles.

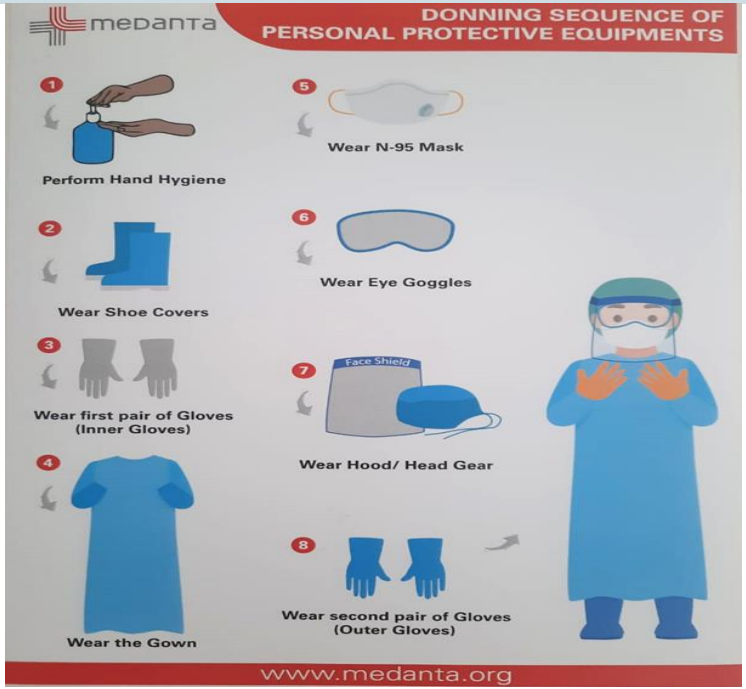
INTRODUCTION

- With the rise of COVID 19 cases at alarmingly rate in our nation, suitable utilization of PPE is one of the most important necessity and vital activities to avoid COVID contamination in a hospital setting of any measure and intensity.

- These three perspectives that are knowledge, attitude, and practices (KAP), are very essential to completely know and analyze the conduct of HCWs. Knowledge tells about an individual's status to perform the conduct, attitude depicts around his/her genuineness as to why he or she considers that the conduct is stated critical, and lastly practice during doing his duties shows if the person is cautious in practicing the proposed conduct.

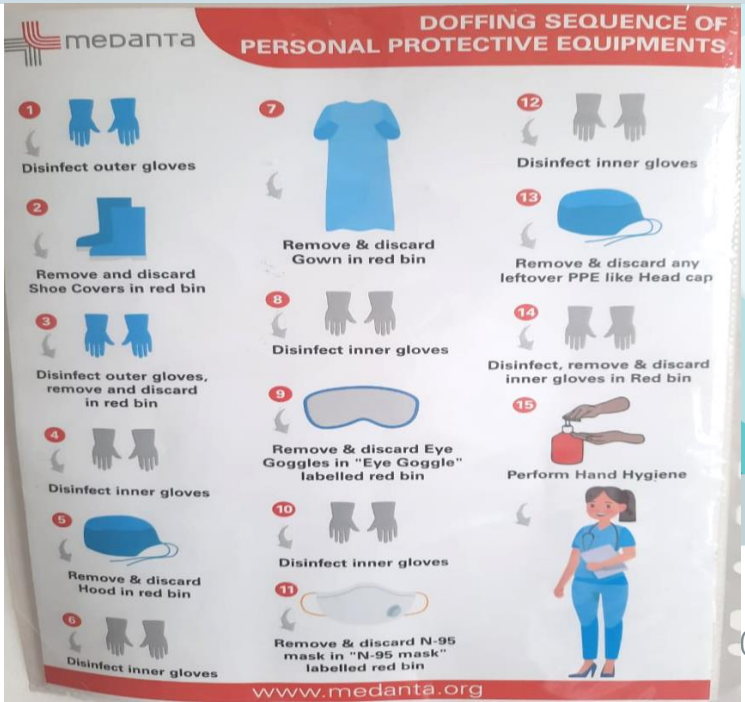
DONNING

- Putting on the Personal Protective Equipment.
- It is indicated when entering red zone confirmed or suspected COVID areas



DOFFING

- Putting off of Personal Protective Equipment
- It is indicated after exiting confirmed or suspected COVID wards.



RATIONALE

The first aim was to perform a cross sectional study of the knowledge, attitude, and practices of health care professionals for doffing and donning. The second aim was to conduct an observational study to determine the are gaps in the donning and doffing procedures and where exactly these occur in the procedure while they practice it.

RESEARCH METHODS

RESEARCH DESIGN

Descriptive cross-sectional research

SAMPLING TECHNIQUE

Convenience sampling

SAMPLING SIZE

Included 50 health-care professionals

STATISCAL ANALYSIS

Collected, compiled, and updated on an excel sheet and then analysed

DATA COLLECTED

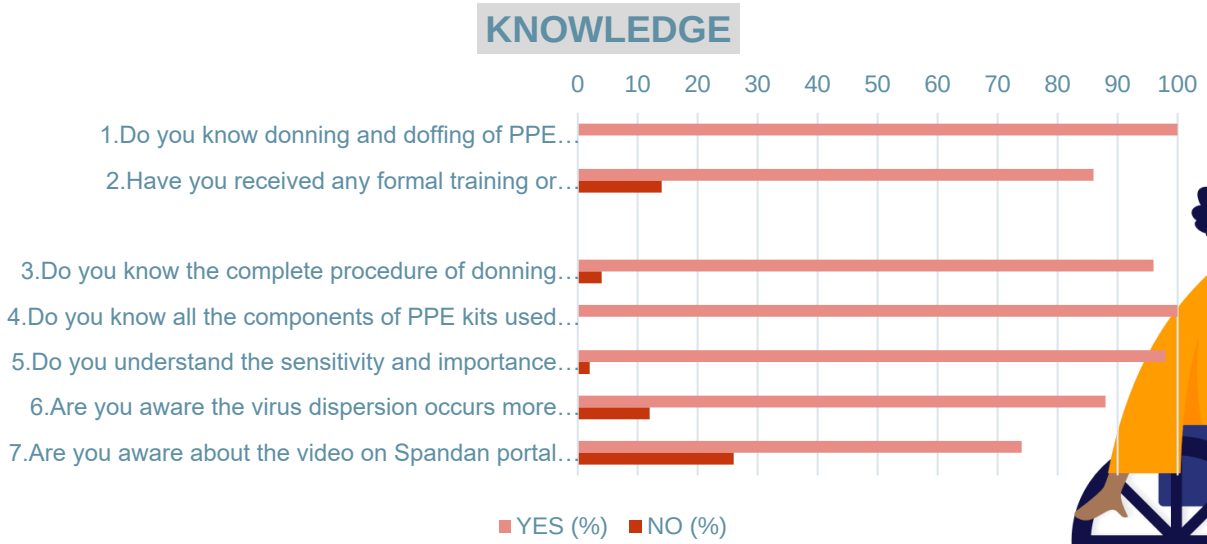
KAP tool- questionnaire on Google forms.

Observational Study-Checklist


30%
15%
48 %
Analysis

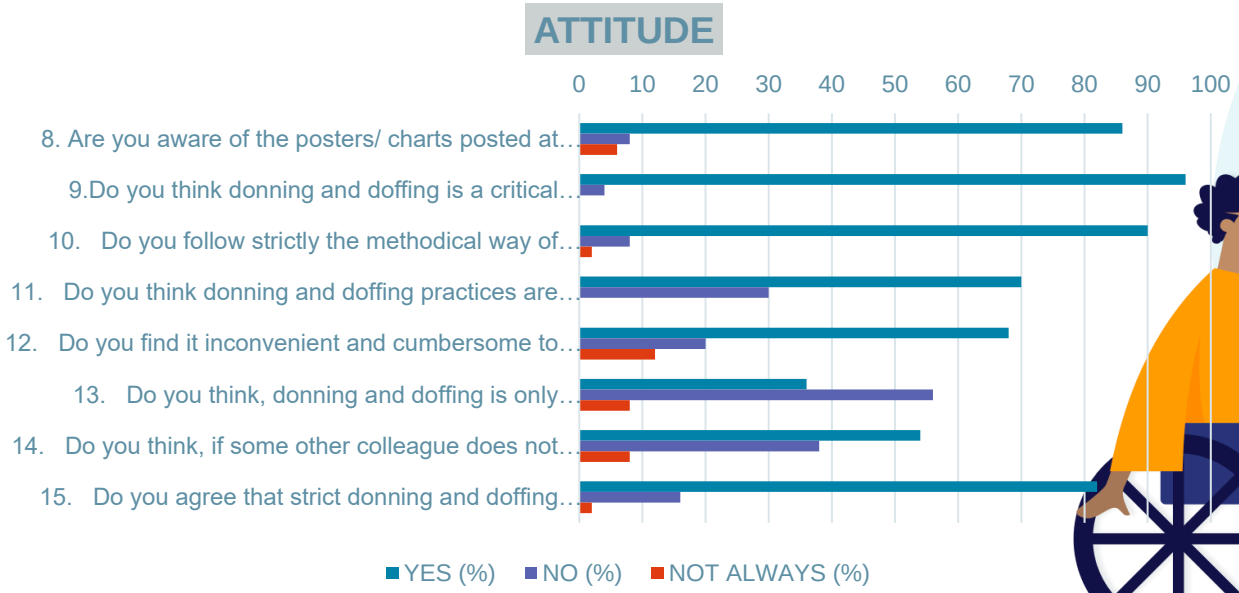
CROSS- SECTIONAL STUDY

ANALYSIS AND INTERPRETATION



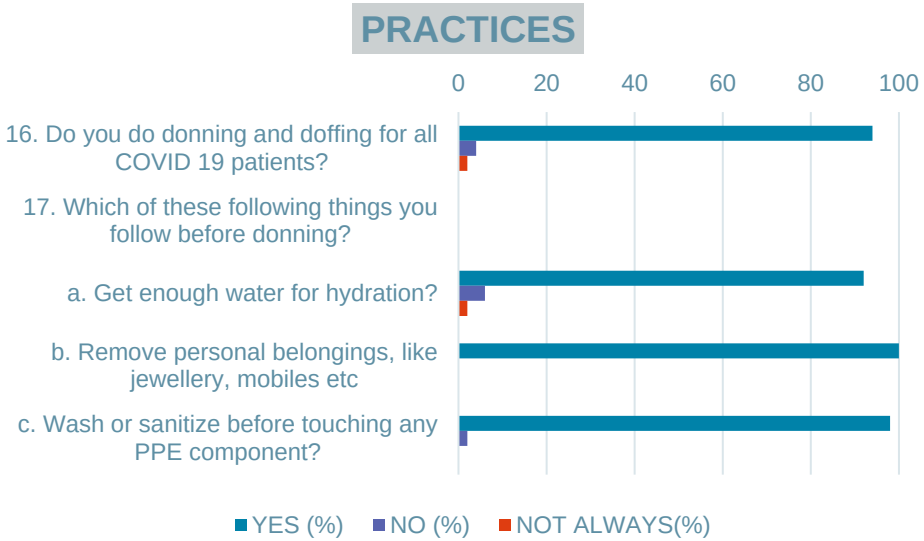
Analysis showed that 100% health care staff had knowledge about donning and doffing procedures, with 86% of them have received a formal training here in the hospital. It also showed that 100% staff knew about the components of the PPE kit, and approximately 98% knew about the sensitivity and importance of the donning and doffing procedures. On enquiring about the awareness of dispersion of virus only 88% of the HCW's were aware that it is during doffing that there is more virus dispersion, rather than donning. Analysis exhibit that only 74% of the staff has seen the video uploaded on Spandan. portal of Medanta about donning and doffing practices.

ANALYSIS AND INTERPRETATION

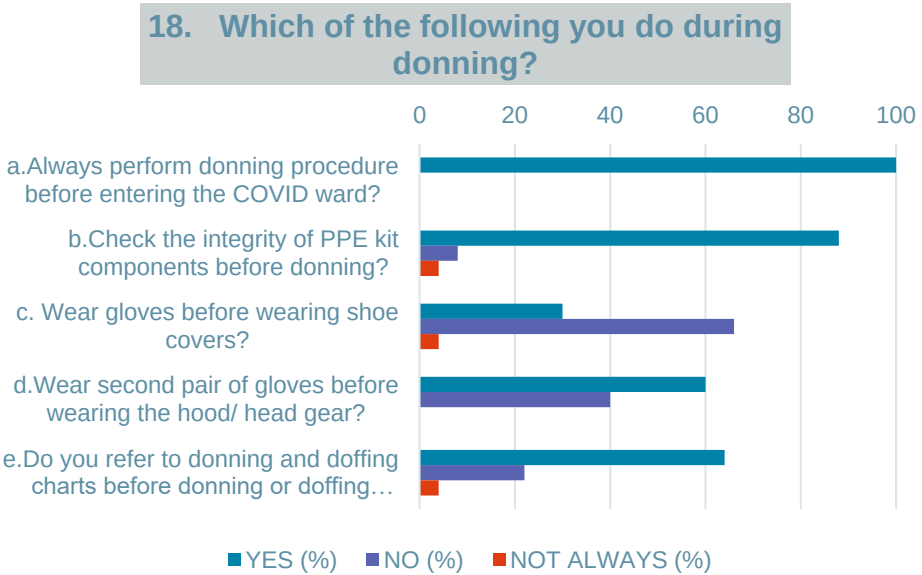


On analysing the attitudes concerning donning and doffing of PPE,86% staff was aware of the charts/ posters posted at various places in the specified areas and 6% did not do this always, 96% of health-care workers think that donning and doffing of PPE is an important procedure which should be taken seriously and 90% of HCWs claim that they strictly follow the methodical way of donning and doffing. However, 58% of professionals disagreed that donning and doffing is only important for COVID-19. Even after a year of the pandemic, 68% of the staff finds it inconvenient to do regular medical procedures or treat patients after donning PPE and 54 of them agree that if other colleagues do not practice it properly, it affects their behaviour also.

ANALYSIS AND INTERPRETATION

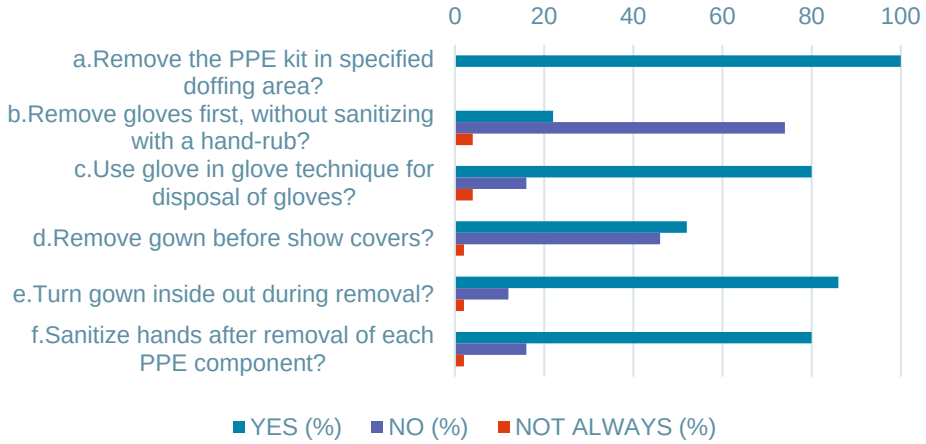


ANALYSIS AND INTERPRETATION



ANALYSIS AND INTERPRETATION

19. Which of the following things you do during doffing?



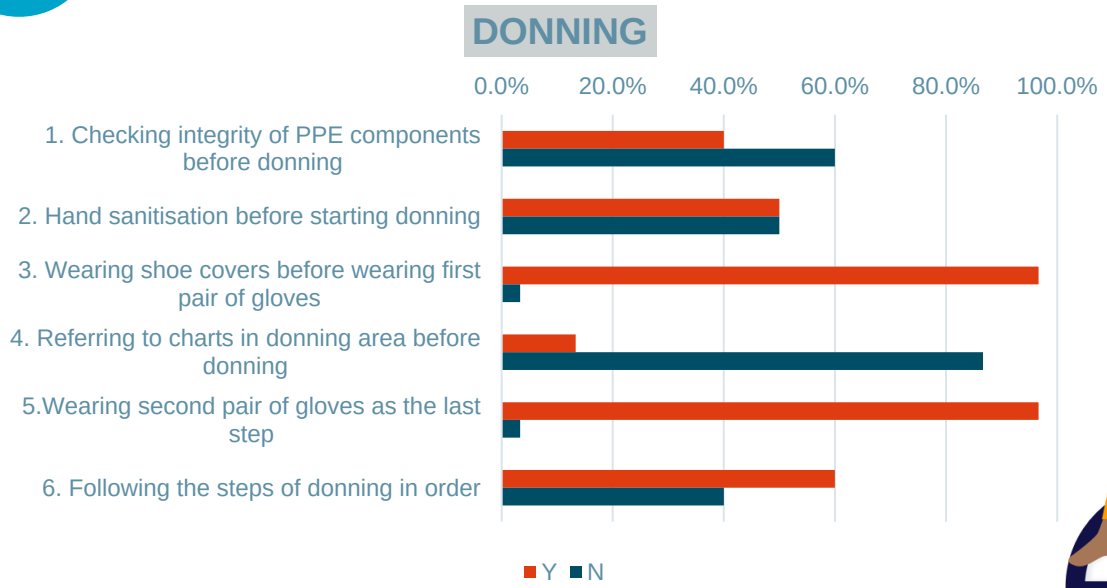
On reviewing practices of health-care professionals, most of them while attending all COVID-19 patient, i.e., 94% did donning/doffing. When asked about, the protocols they follow before donning, 94% revealed they took enough water before donning, and everyone removed their belongings before starting to don. Also, 98% claimed they wash or sanitize their hands before touching each PPE component. On further analysis, about what all they follow during donning, entire staff performed donning procedure before entering the ward, and 88% checked integrity of the PPE components before donning.

When reviewed about the donning steps, 66% were correct that shoe covers are worn before wearing gloves. On further analysis, it revealed that 60% of the staff wore second pair of gloves before wearing the hood, whereas the guidelines suggest wearing second pair of gloves as the last step. Also, only 64% of the staff refers to donning and doffing charts before performing these procedures.

Studying about how aware the HCWs were about doffing, all of them removed the PPE in specified areas. 22% said they removed gloves first even before sanitizing them, which is the first and basic step, and is the primary source of transfer of infection. The glove in glove technique was used by 80% of the workers, and 86% turned gown inside out before disposing off, to expose the virus in the surroundings. The problem area though was almost 46% of the staff removed gown before show covers which is an incorrect step, which shows shear negligence towards the sensitivity of doffing practice.

OBSERVATIONAL STUDY

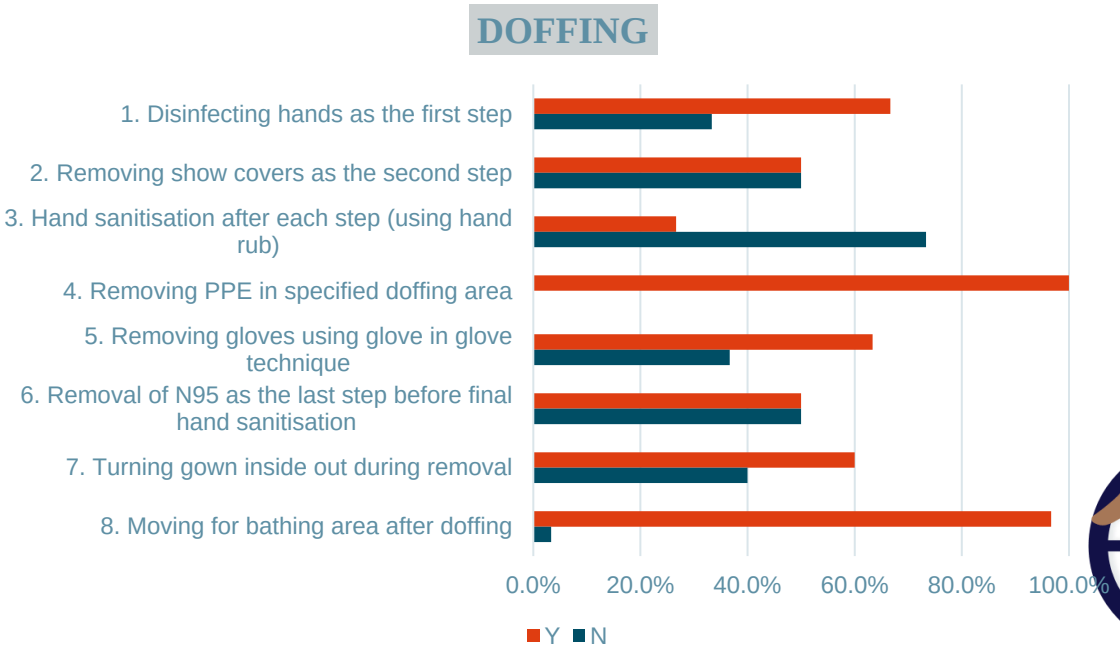
ANALYSIS AND INTERPRETATION



DONNING

On observing the staff, while they don the PPE, there was a drastic difference between the responses and the observation. Though 88% staff claimed they checked the integrity of components, only 40% practiced it. 50% staff practiced hand sanitization, before starting donning. Almost 97% of the staff wore show covers as the first step of donning practice. While reviewing the observations revealed that only 13.3% of the staff referred to the charts posted in the areas for reference, though the cross-sectional study said 64% of the staff practiced it.

ANALYSIS AND INTERPRETATION



When the doffing procedure was observed in the specified doffing area, results revealed, the primary and the most important step of disinfecting hands before starting the removal of components was done by only 66.7% of the health care workers. Also, though the responses showed that 80% of staff sanitized hands after removing each component, only 27% of them practiced it. These two steps are a major concern. On further observation it was seen that 50% of them removed shoe covers as the second step, and 50% removed N95 as the last step, which shows a lot of difference from the data obtained from the responses. The glove in glove technique was actually practiced by 65% of the workers and turning the gown inside out was done by 60%.

DOFFING

SUMMARY

- Incorrect donning and doffing practices raise concern, as these practices are the major source of virus transmission among the Health Care Workers. If the professionals lack KAP, they become susceptible to infectious agents.

- It was observed that however professionals were prepared to adhere to the systematic method as to how donning and doffing practices are done, yet they really did not practice it, which demonstrates an emotionless disposition maybe because of absence of motivation, lack of time and more workload.

RECOMMENDATIONS

- While observing, it was seen that the donning and doffing areas lacked enough hand sanitizers, or it was even absent. This led to doffing without sanitization. To ensure this, there should be daily checks at the specified areas.
- The doffing areas lacked charts, though they were present in donning areas. However, the charts were quite small and almost insignificant. This can be corrected by putting up bigger charts at both the areas, that are visible enough.
- Introducing a donning and doffing assistant, at the specified area can be a good solution to ensure proper practice.
- Most of the donning areas had TV, so video demonstration is recommended every shift of donning. Even at doffing areas, there should be some similar setup done. This will increase the motivation among the health workers to practice right steps.
- Apart from the above recommendations, repeated training for the staff, at regular intervals and teaching about the sensitivity of the situation, is the primary and most important step. This will help in internalizing the practice in their attitudes.

CONCLUSION

Overall, it can be concluded that this study helped in understanding major problems related to knowledge, attitude and practices happening at the hospital, that can be corrected by mentoring programmes, training, incorporating routine practices by repeated trainings, following basic guidelines, efficient use of resources and regular follow ups. Also, by guiding the staff about critical procedures, which can bring about diminished rate of infection amidst crisis like COVID-19. As the global pandemic continues, all the above suggestions are the need of the hour.

THANKS!