



VOOC

Voice of CAHO
Committed to Safer Patient Care

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FROM THE PRESIDENT'S DESK



Dr. Vijay Agarwal

WHAT AN ERA WE ARE PASSING THROUGH!!

Everyone is bewildered and struggling to find answers for questions they have never encountered in their life before.

Being realistic:

There are no experts and even the "experts" differ on almost every prediction and solution. I think the initial four-week phase of the lockdown was accepted by the community. This lockdown did bring down the numbers of COVID positive cases.

However, as the time passed the stress and anxiety in the community became palpable and the leadership has not been able to grasp and address this restlessness. We may not ever measure the psychological impact this has in our society and perhaps, we do not even have the right tools or technology to do so. Different sections of the society have been affected differently.

Has there been any positive impact for this pandemic?

To the delight of our readers, I think healthcare will be the biggest beneficiary!

Here are some of the impacts in healthcare:

1.This pandemic has boosted the adoption of digital health, especially telemedicine, just as demonetisation did to digital payments.

Telemedicine guidelines were published by the Board of Governors of MCI.

***How can CAHO help?** We at CAHO are very proud to have played a role in nudging them to issue these much-awaited guidelines. The Telemedicine Society of India needs to be congratulated for working tirelessly on this issue.*

Consequent to this publication, a number of telemedicine solution providers mushroomed and healthcare providers had no clue as to how to choose! CAHO sensed the need and joined hands with DH India, CHIME and HIMSS to create a registry of telemedicine solution providers and also, to start their evaluation.

Most of this work has been accomplished and will be available at telemeregistry.in.

As the adoption of digital health increases, the issue of cyber security also takes centre stage. CAHO has teamed with InnovatioCuris to sensitise members about this issue and has created a Help Desk. A self assessment toolkit for cyber security is being developed.

2.Adoption of infection control practices is high up in every hospital and healthcare workers' agenda.

What the quality teams in hospitals could not do even in implementing basic things like hand hygiene, has been accomplished by the fear of this dreadful virus.

***How can CAHO help?** CAHO is conducting a series of webinars to educate our member hospitals on various standards and guidelines and a webinar series on operational readiness for hospitals in the Indian perspective. This content is available free to non-members too at Caho.in. It is time to intensify our efforts and try to achieve the best possible levels in infection control, and not just COVID-19, but as general protocols that can be inculcated permanently into the functioning and culture of your hospital.*

3.Learning will move away from the classroom to the digital world.

***How can CAHO help?** CAHO has been one of the pioneers in conducting webinars for the last 4 years. During this pandemic, more than 12 webinars have been conducted by us on almost all aspects of this disease.*

We have also launched an online training course for the 5th edition of NABH Standards. The response has been overwhelming and we will work hard to exceed the expectations of those who have registered for the course. Many more courses will be announced in near future.

FROM THE PRESIDENT'S DESK

4. Opportunities for healthcare at national level:

a. The total budget that is set aside for healthcare by the central and state governments is bound to increase with improved awareness of the deficiencies, both at government level as well as among the masses.

b. There is renewed focus on quality of procurement and the supply chain. With a wider focus on the Make in India initiative, we could see better quality procurement being available with reliable supply chains in the future.

c. Private and Public funds across the world are seeing investment in healthcare as relatively risk free and this should start pouring in investment as soon as we see some normalcy return.

d. Private investments into startups, or whatever is left of it, will shift to healthcare technology and we could see a more competitive and efficient marketplace with reliable options.

e. Government policy that has frequently been the cause of pain for healthcare, may shift more in favor or at least be more inclusive of healthcare institutions, now that there is increased awareness of the need and the hardships in this industry. Policy may also focus on standardizing and improving the quality of care across the sector.

f. Data usage has increased and will increase even more in near future. Government should provide more spectrum to ensure good speed for data download and upload

How can CAHO help? At CAHO, we work actively for the interest of our members and the society at large and we continuously work with various agencies and policymakers to guide and nudge policy.

As an initiative towards spreading the right information and creating awareness of the opportunities that may present themselves in the times to come, we have decided to focus on outreach as well as on enabling easy forums for discussion so that the concerns of our members can be brought to the policymakers, as we have done with NABH.

Best Wishes & Stay Safe !!



FROM THE DESK OF SECRETARY GENERAL



Dr.Lallu Joseph

Operational Planning of Hospitals towards COVID-19 Pandemic: Indian Perspective

The news about COVID-19 coming from different parts of the world has been a wakeup call to health system leaders. Especially in a country like India where healthcare infrastructure is largely inadequate to the vulnerable population. We are already witnessing some of the world's most advanced health systems stretching themselves beyond their capacity. Fortunately, unlike many countries, our government was proactive and took the initial steps such as initiating the lockdown and other preventive measures which helped to flatten the curve of the outbreak. This effort sustained the health systems and prevented us from entering the third stage of the pandemic, community transmission. But, if such a situation develops and exceeds the state's available capacity - already at its brim - then rational decisions may need to be taken to extend the available private infrastructure, so that it may be called on to deliver. The private healthcare infrastructure of the country is robust; unfortunately, hospital systems are designed for average patient loads, not epidemics, rendering them largely ill prepared or at the best, ignorant to the standards needed to be in place to face the anticipated swarm of patients.

It is said, "A man prepared well, has fought half the battle."; when facing the inevitable such as in the prevalent scenario, the odds are best touted to the extent of one's preparedness. I am sure, with the kind of information flooded around, all of us are entitled to a doctorate from WhatsApp University by now. But they leave us utterly confused on how to go about and what to do and more importantly, what not to do.

In an endeavor to clear the air and correct the wrongs, we have taken some important aspects and standards

implemented in many of our renowned partner hospitals who are appropriately prepared to care and treat COVID - 19 patients requiring hospitalization, while maintaining other essential medical services in the community, both during and after a pandemic and furthermore, CAHO has conducted a webinar to create awareness amongst the NABH-accredited hospitals who are best suited to accommodate in the prevalent pandemic, as the policies and standards are already in place at such hospitals.

What can we learn?

On the outset, thanks to NABH, we had at least started thinking about prevention and preparedness. Whether it is about preparing an organization towards any emergency like fire or the other, we at least have a plan in place, and we have been conducting mock drills based on the standards we have on paper. Regrettably, when it comes to infective diseases particularly, there is none. So, we have reviewed the advisory that was released earlier; there were some actions proposed therein, which we may want to look within towards our preparedness in handling the situation staring at us.

As indicated, we may be at war, the command center forms the most important part of its preparedness, like wise; it would be very essential for the hospital to establish a **Hospital Incident Command Center**, clearly defining the roles and responsibilities of the team. This shall go a long way in ensuring the delivery of the services. This way, the authorities shall be well informed of their roles and thus will be able to provide better results.

History is a witness to the fact that great wars were won with proper and timely information and here again, being informed may be the game changer. Hence, there is a greater emphasis on being informed. Timely information on the local COVID-19 situation may help in drafting the plan. Further developing and reviewing facility's emergency plans, establishing relationships with key healthcare and public health partners in the community, creating an emergency contact list and communicating the facts with staff and patients will go a long way.

Forming core committee/HICS for various departments may help in the decentralization of decision making, resulting in quicker resolutions.

FROM THE DESK OF SECRETARY GENERAL

The key areas for such committees may be by enlarging as follows: Patient flow, Administrative controls, Infection control practices & Engineering controls, Manpower including staff health, Training & development, Logistics, Clinical management besides others as it may suit individual hospitals as the case may be.

Proactive and improvised strategies deployed at core activity areas as under shall play an essential role in easing the taxation on the healthcare staff and delivering efficient patient services under the prevailing adverse conditions.

Different strategies recommended for triage and patient flow range from erecting an ad-hoc Flu clinic at the entrance, where patients could be screened with thermal scanners and further assessed with checklists such as providing the emergency staff with full protection and PPE. Also having the Flu clinics and COVID wards in isolated buildings and encouraging separate routes and lifts for staff movement.

The various administrative controls recommended to be enforced are establishing essential services, creating additional beds, arranging essential staffs, arranging support services like transport facilities, enforcing entry restrictions, visitor management, donning and doffing supervision, food and refreshments, enforcing social distancing and promoting Tele-consult and Telemedicine.

The recommended Infection control and engineering control protocols are to ensure regular cleaning & sanitization of all areas, instruments, equipment & linen, spraying and disinfecting the positive pressure areas - ICU, Isolation Wards, Positive pressure OT to Negative pressure OT and Waste Management.

The recommended Human Resource including staff health protocols are to strategize manpower planning, social & psychological support to staff on staff safety, skill development, and staff health. Training the nurses, doctors, paramedics etc.

The recommendations for the logistics and supply chain management departments are to purchase adequate number of PPEs, Medical Equipment, Medications and Disinfectants / Cleaning Materials. Following Right Quality, Right Quantity, Right Time, Justified use/appropriate use and Inventory/adequate stock maintenance to be enforced enthusiastically. The essentials for the clinical management are as follows, to have in place COVID-19 & other specialty operational aspects and protocols by SME defined and implemented/adopted in the concerned specialty, appropriate evidences collected, use of appropriate PPEs, staff training on donning and doffing, support security services and housekeeping service to coordinate the flow of patient movement.

Prevent-Prepare-Care can perhaps summaries the only viable solution, at hand for humanity on the whole, until we have a vaccine ready.

Innovation and improvisation will render us with an upper hand in this fight against the pandemic. With the second largest population on earth we perhaps have a lot of bright minds, wonderful educated youngsters who can actually aspire and innovate and come together now, when unity is most sougthed than ever.

Hoping to untidily succeed. We shall survive!!



“Thank you so much for everything you do, both in facing this pandemic and before it. You’ve taken care of families at every step, from birth to death. You are now walking right into the fire to help humanity get through these tough times.”

PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS



SREE RENGA HOSPITAL, CHENGALPATTU
Dr. Anuradha Pichumani, Executive Director

Battling the unprecedented global calamity wrecked by the Corona virus is proving to be a major challenge for even developed nations. As a developing country, India today is reporting increasing numbers of Covid-19 cases, in direct proportion to the quantum of testing undertaken. What can a small, private hospital in a semi-urban location in India do, to provide contemporary prevention and care to its rural patients and employees? Sree Renga Hospital, Chengalpattu, Tamil Nadu, India – an NABH-accredited, 47-bed, small, private hospital in a rural area in southern India has implemented the following, in the fight against Corona virus.

FOR PATIENTS

In addition to hand washing before entering the hospital premises, patients were encouraged to wear a face mask or wrap a piece of cloth / scarf around their face, to prevent droplet transmission from occasional coughs and sneezes. Patients were triaged just outside the hospital's Reception lounge. The Reception lounge re-configured, for Out-Patient Assessments. All In-patients were screened every day, for risk factors to Covid-19. Caregivers of the patients in the ICU were allocated private rooms. All antenatal patients were contacted and reassured of the availability of adequate clinical support when required, counselled to maintain good hygiene and social distancing.

FOR HOSPITAL

The first two weeks were spent educating patients, employees and doctors on prevention of infection. Training was streamlined under the following four broad areas:

- a) Environmental cleaning
- b) Hospital Infection Control
- c) Personal Protective Equipment – donning / doffing
- d) Management of Emergencies

Incident Management System was defined with clear allocation of roles and responsibilities for all employees. We pooled in resources and arranged logistics to run the hospital safely for patients and employees, especially with curfews and lockdowns being imminent. Resources were sourced to manage the Pharmacy, Laboratory and other departments.

PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS

Spraying of Lyzol was done twice a day throughout the hospital. High-touch areas were identified and cleaned with fresh 1% Sodium hypochlorite every two hours. Reminders were issued hourly, via the Public Address System, to enforce hand washing by all staff. Tables in the dining room were spaced out. As mandated by law, communication of key patient data was done daily with the statutory authorities.



OUT-PATIENT MANAGEMENT

In the third week of the outbreak, routine Out-Patient consultations were suspended as mandated by the Government and Tele-consultations initiated (please see below). Emergency Department continued to be in operation, however. Walk-in patients were screened just outside the hospital's Reception area. Triage was done and patients with COVID-19 symptoms were shifted to a separate room, seen by the doctor and followed-up appropriately.

UNINTERRUPTED DIALYSIS SERVICES

Our hospital participates in a state-funded scheme that conducts about 700 free Dialysis sessions per month. With the support of the Govt of Tamil Nadu, India, we continued to provide this service to patients in three shifts, with reserve staff allocated for every week, on a rotational basis. All Dialysis patients were screened just outside the hospital, prior to the start of the Dialysis session, their caregivers were provided restricted access and staff in the Dialysis department were equipped with full PPE (face mask, shield and cap). During the nationwide lockdown, the Government of Tamil Nadu, India supported the patients with free door-to-door transportation service to the hospital. 100% attendance of both patients and staff was thus ensured, during the crisis period.



Floor marking was done with a three feet gap mandated between patients.

PREPAREDNESS

TO TACKLE THE COVID-19 OUTBREAK :

A PRIMER FOR HOSPITALS

IMPROVISED LEGGINGS

In the midst of the country-wide lockdown and scarcity of medical supplies, sourcing leggings for staff as a PPE accessory proved challenging. With no clothing shops and tailoring services available, the 80-year-old mother of the hospital's founder pitched in to stitch 20 pairs of leggings for the hospital's frontline staff.

TELE-CONSULTATIONS

Telemedicine was activated for Out-Patient consultations via LIVE, online, two-way, video conferencing between the doctor and the patient, for patients to be able to follow-up their treatment. Patients upload their details, including test reports, past Consultation and Prescription sheets on a portal. After review and online Consultation, the doctors prescribed tests and drugs, to be procured locally by the patient.

IN-PATIENT MANAGEMENT

In the third week, as instructed by the Government, all elective surgeries were suspended; only emergencies and delivery of babies were undertaken. Also, 25% of the available beds were allocated for Covid-19 patients. Drugs, consumables and Personal Protective Equipment were issued separately for the Covid-19 ward inside the hospital; Biomedical Waste Management handled separately too.

In the ICU, one bed with Ventilator was allocated for COVID-19 patients. Other Emergency admissions to the ICU (for non-COVID-19 patients) are being undertaken too.

FOR EMPLOYEES

Many of the hospital's employees are from nearby villages and due to the lockdown, arrangements were made for their stay inside the hospital premises, along with the hostel staff. Logistics for food and other things were arranged. Letters of reference were provided to all employees and their custodians, to enable them to commute to the hospital without restrictions. Suitable provisions were made to accommodate doctors and staff, within the hospital premises.

PREPAREDNESS

TO TACKLE THE COVID-19 OUTBREAK :

A PRIMER FOR HOSPITALS

Staff were instructed to strictly work wearing appropriate PPE and N95 masks, improvised face shield and caps were provided to all staff.

All employees were screened every day, for risk factors to Covid-19.

Leadership Huddles conducted every day. The Administrative team engages in enthusiastic conversations with all staff members; logistics and resources reviewed and discussed amongst the Management; communication from the leadership to the staff strengthened.

KNOWLEDGEBASE

Throughout the evolving crisis, participation in webinars by doctors at the frontline in Ground Zero, from Italy and elsewhere, through ISQua and the World Patient Safety Network, provided opportunities to gain and exchange ideas about best practices.

During this time, Sree Renga Hospital, Chengalpattu actively participated in a webinar on cleaning procedures for about 20,000 hospitals empaneled in the Ayushman Bharat scheme of the Govt of India, through Consortium of Accredited Healthcare Organizations (CAHO). The hospital is also coordinating the conduct of two Webinars (on Telemedicine and Emergency Preparedness) for CAHO and one for ISQua, for doctors and Safety Managers across the world on how India is organizing itself in this crisis.



PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS



MEENAKSHI HOSPITAL, TANJORE
Dr. Bala Murugan,
General Manager -Operations



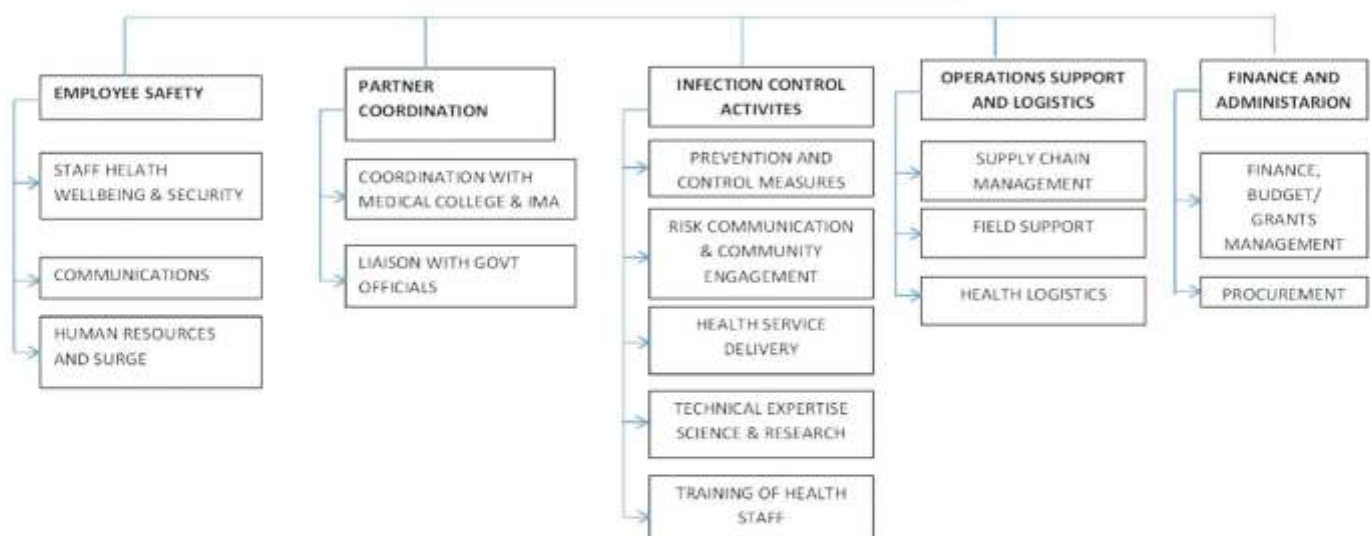
Our hospital is the only 250 bedded multispecialty private centre catering to 6 districts in delta regions. On average, we are receiving 400 out patients and 190 in patients per day. Also we have employee strength of in and around 1200 employees. Ensuring safety to the patients, their families and our employees during this critical COVID period, with the experience of handling outbreaks and structured Infection control program

PLANNING

Safety measures and protocols with reference to WHO's Incident management system

WHO's INCIDENT MANAGEMENT SYSTEM ORGANIZATIONAL STRUCTURE: CRITICAL FUNCTIONS AND SUB FUNCTIONS

LEADERSHIP/ INCIDENT MANAGEMENT TEAM



Reference : Emergency management –Incident management system and its applications by WHO

PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS

1. PATIENT SAFETY

a) Three screening levels has been made from the entry point of patient. These levels are made to avoid spreading infections from outsiders to inside the hospital.

I. Screening Level 1 – Level 1 cabin has been made near front gate, in which temperature , travel history and COVID symptoms are enquired and if suspected they are shifted to Government hospital

II. Screening Level 2 - Person with normal fever without COVID symptoms are treated after proper PPE and handwash. They are not sent to all areas, Physician will come and treat them in Screening OPD .

III. Screening Level 3 – Emergency cases with fever and patients with breathing difficulty are treated in Screening level 3.

b) Visitors are restricted, one attender is allowed for each in patient. Children and adults above 55 years of age are not allowed inside the hospital as attenders.

c) Suspected patients with COVID symptoms are informed and blood samples are given for testing and that patients are isolated from other patients.

d) All surfaces and touchable areas like lift buttons, steps handle and doors are cleaned with disinfectants with 1 % sodium hypochlorite.

e) Announcements and awareness has been given by our infection control team in Patient waiting areas like OPD and diagnostics.

f) Social distancing markings are implemented in all places including all dining areas and waiting areas



PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS

2. EMPLOYEE SAFETY

For employee safety, the following implementations are made.

a) Three types of areas were classified and PPE are given according to their classification by infection control officer.

I. High risk areas (Critical care units) are given with N95 masks, Gloves and COVID aprons.

II. Medium risk areas (Support services) are given 3 layered masks and gloves

III. Low risk areas (Admin , facility) are provided with cloth mask and gloves

b) Rotational duty for all departments. As the patient flow is less, not all the employees are needed to come onsite. Employees above 60 years of age are given paid off and rotational shifts implemented to reduce the risk of exposure to infections and to reduce the use of PPE. On an average, 380 employees are working in day shifts whereas 280 are in night shifts. The remaining of the employees are placed on call.

c) Pregnant employees are also given paid off.

d) Employee with fever, cough and cold are treated and given off.

e) If employee relatives like father, mother, children or spouse or affected with any of the symptoms, they are also advised to stay at home, until they are fine.

f) Hostels for both Men and Women has been arranged for day scholar employees and on call duty staffs can also stay in hostel.

g) Cabs provided for major 6 locations for pickup and drop for employees during lockdown period.

h) Nutritional supplements like herbal tea and immune rich foods and juices have been given to all staffs.



PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS

OTHER MEASURES

1. COVID 19 – Team has been prepared with list of volunteers in various department.
2. Usage of COVID PPE and removal of PPE training has been given to COVID Teams.
3. COVID Ward has been prepared in isolation area from the hospital building with 30 beds in it.
4. Continuous awareness about dos and don'ts and free diet counselling are given to all departments as per schedules.
5. Passes are given to employee's relatives for picking of employees during working hours.
6. Adequate hand rubs are placed in all major areas
7. Entry into hospital allowed only after monitoring temperature and proper hand hygiene.

CONCLUSION

To handle any major outbreaks / Pandemic like COVID structured organizational roles and responsibilities and strict infection control measures are need of the hour. We, at Meenakshi hospital are prepared well ahead with safety measures and preventive protocols. Also our team members showed courage and dedication to combat this critical situation. We are sure that, with this activities, we will come out safely without any major outbreaks.



PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS



JSS HOSPITAL, MYSURU
Dr. Pratibha Pereira, Assoc. Professor,
Dept of General Medicine



Our hospital is the only 250 bedded multispecialty private centre catering to 6 districts in delta regions. On average, we are receiving 400 out patients and 190 in patients per day. Also we have employee strength of in and around 1200 employees. Ensuring safety to the patients, their families and our employees during this critical COVID period, with the experience of handling outbreaks and structured Infection control program

All patients who walk into the hospital will be screened for fever and any symptoms suggestive of respiratory or flu-like illness. Such patients are then diverted to a Flu Assessment area where further assessment and disposition occurs. There are separate counters for adults and paediatric patients manned by residents and consultants of each field. Healthcare workers in these areas are provided with appropriated personal protective equipment (PPE), hand sterilizers and suitable facilities for bio-medical waste disposal.

Patients who arrive at the hospital with any emergent condition are seen and triaged based on symptoms and preliminary examination at the Emergency Triage area. Those patients who show no features suspicious of flu-like illness are directed into the general emergency and resuscitation area as usual.



Registration Desk for COVID-19 Suspect Patients

PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS

Emergency patients who do show flu-like features and require urgent intervention have to be attended immediately in an area that is fully equipped and yet allows isolation if necessary. For this purpose an area adjacent to the Flu Assessment has been set up as the Flu-ER / Resuscitation zone. This area is manned 24x7 by doctors and nurses in full PPE, trained in resuscitation including endotracheal intubation and institution of mechanical ventilation.



Emergency Medicine Department



Screening area for COVID suspected patients

Stable patients who have a mild to moderate illness requiring admission for treatment/ observation/ awaiting test reports are cared for in a Isolation/ Flu Ward. This ward is located in such a way that if there is a surge of patients to the hospital, adjacent wards can be converted into additional Flu Wards to augment the beds available for isolating patients. Nurses and doctors working in this area are in full PPE at all times. Facilities are made available for taking swabs and samples for testing.



FLU Clinic

PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS

Patients who required resuscitation in the Flu ER or those in the Flu Wards who show clinical deterioration are admitted to the Respiratory/ Flu ICU that is an isolation ICU that has been identified for this purpose. Expansion of number of beds is possible by recruiting additional adjacent ICUs as the need arises. All the ICU beds are equipped with ventilators. Respiratory medicine specialists and critical care specialists man these ICUs with the help of residents and dedicated nurses. All personnel are in full PPE including eye protection and face shields/ hoods in this area.



Resuscitation Area



Isolation Ward Beds

Porters who help move patients around and housekeeping staff that are instrumental in applying proper decontamination procedures and appropriate bio-medical waste disposal are all trained specifically in the recommended processes. Hospital Infection control nurses (ICNs) closely monitor the training and implementation of all processes.



PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS



VINAYAKA MISSION SUPER SPECIALITY
HOSPITALS PVT. LTD, SALEM
Dr. T. Devanthi, Head- Quality



Beginning the second week of March, when Corona was spreading in other parts of the world and lot of discussions happening about its arrival in India, Quality department started taking the following steps with infection control and our microbiologist.

1. Started taking stock of our hand rub (we had been making our own for more than a year as per WHO guidelines).and so of the other PPEs like surgical masks and n95 masks and gowns abs gloves
2. We calculated or usage so far and accordingly indented raw material to last for the next 3 months (we had to increase because we had to provide at the railway booths, doctors, government staff etc)
3. We had to order for dispensers too. We decided to provide all our staff with 1 litre of hand rub for their own family use at a very nominal cost (prices had started to increase by then and so was unavailability)
4. We started conducting several sessions for hospital staff regarding the Corona virus, it's symptoms, importance of hand hygiene and distancing etc. more so for our nurses and guide keeping



PREPAREDNESS

TO TACKLE THE COVID-19 OUTBREAK :

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We identified a separate room for patients presenting with fever cough and breathlessness.

1. Put up a screening tent at the porch to screen for fever for everybody entering the hospital (however couldn't do for the doctors coming by car).
2. Anybody with symptoms was not taken to the ER but to the special OPD by a staff wearing surgical mask initially, which was later changed to N95 when aerosol transmission was suspected. Patient and attender were also given mask.
3. The ER doctor with his mask assessed the patient and then informed the physician if there was suspicion investigations like CBC and X- Ray and if those were positive a CT chest was done. If that was suspicious too, he was referred to the GH.
4. Radiology technician were also educated and trained about the use of hand hygiene, the need to clean the couch and other items in the investigation room with hand rub after each patient. Also emphasis given on giving a fresh apron for each patient. Later they were also asked to wear a mask but not to handle the patient. The nurse accompanying was to put the patient in position to learn the technicians exposure.
5. OPD ward girls were asked to give hand rub to all patients entering the consultation rooms, and cleaning the tables and chairs at least three times between 9 and 4.
6. Importance of hand hygiene, not taking suspect pts around the hospital, but consultant seeing them in the designated room only and not letting them with other patients was followed.
7. Hand rubs were provided in corridors and the nursing in charges took a few sessions for patients and their attenders in the corridors.
8. ER staffs were asked to identify nurses in each shift who will handle fever patients.
9. A session was conducted by microbiologist for doctors on the COVID situation and the steps that the government was proposing (i.e before curfew).
10. Telephonic consultations were encouraged as much as possible.
11. At present only emergency surgeries and procedures are done.

PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS



SANKARA EYE FOUNDATION

SANKARA EYE FOUNDATION, INDIA

Dr. Geeta Fulari, Quality Manager



With an increase in the risk of Corona virus infections, we enter a phase where there is possible community transmission of Corona. It was important that we ensured utmost control in the environment to prevent transmission. To ensure safety of all staff, patients, attenders and to prevent the spread of Corona virus in the nation, Sankara Eye Foundation, India has undertaken the below initiatives to be more vigilant and diligent.

1. Patients are being asked for any history of fever, cough & visit to countries outside of India. If yes but without any emergency eye condition, they are asked to return after a week.
2. Conjunctivitis cases are being seen directly and disposed with minimal risk of exposure to staff. The doctor in the room are supposed to use all protection -mask & gloves. Rooms are sanitized regularly with a spill protocol.
3. Announcements are done through public announcement system once in every 3 hours instructing the housekeeping staff to clean all surfaces like door knobs, taps, etc. with surgical spirit / disinfectant. Every evening or twice a day all side-handles of patient chairs are cleaned as they would have used them as support.
4. Standardized floor cleaning solutions (disinfectants) are being used for cleaning.



PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS

5. Vehicles are being cleaned daily gently with Lysol after each drop.

6. Canteen surfaces are being cleaned at least 3 times a day with disinfectants.



7. Hand sanitizers have been placed beside biometric machine and all the staff is instructed to ensure they use it before and after punching

8. Various awareness posters have been placed in patient care areas to increase awareness on preventing the spread of Corona virus and how to protect themselves.



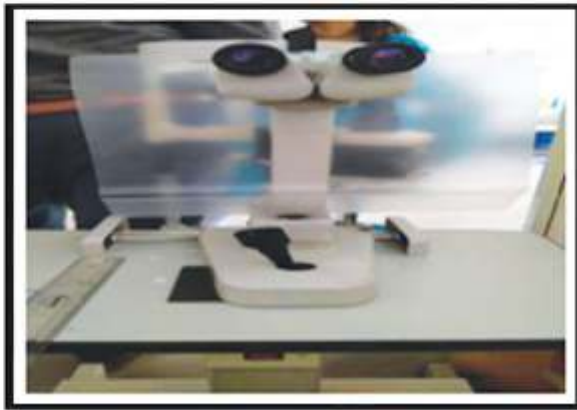
9. Cleaning of split AC and AC vents in operation theatres with disinfectant was done as a campaign across units.

10. Hand washing classes have been conducted to increase awareness about hand hygiene for preventing spread of the infection.



PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS

11. Protective screen have been attached to the slit lamp



12. Every person entering the hospital is being screened, temperature is being checked using digital thermometer.



13. Standees have been displayed near hospital entrance asking patients to confirm that they are not having any symptoms of fever/cold/cough, they have not been in contact with anyone with COVID19, they have not more than 1 attender, and they have an eye condition where they cannot postpone their test and it is worth exposing themselves to a crowd.

14. All Outreach camps across units have been called off from 14th March 2020

15. Optometry college holiday has been declared to prevent any chances of infection getting spread.

16. All travel (for conducting clinical audit, meetings, etc.) have been cancelled to prevent the risk of getting infected.

17. Only skeletal staff shall be available to handle emergency cases. Rest all employees have been asked to ensure they stay at their home and ensure self isolation / social distancing.



PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS



RAJAGIRI HOSPITAL, ALUVA, KERALA

Dr. Susan John, Consultant, Clinical Epidemiology



Rajagiri Hospital is a 550 bedded multi-specialty, tertiary care hospital situated in Aluva, Ernakulam district of Kerala, accredited by JCI, NABH, NABL, NABH for Nursing Excellence, Green OT certified and Halal certified.

Rajagiri hospital, Kochi has a policy on Global Communicable Diseases (GCD) of Epidemic Potential that was formulated to deal with potential life threatening communicable diseases.

HEMB - Under this policy, the hospital has a Hospital Emergency Management Board (HEMB) who shall overlook all the activities in the hospital during such a period.

CIO - A Chief Incident Officer (CIO, Dr. Renji Jose, Sr. Consultant, General Medicine) was identified as nodal officer to coordinate and command all activities between different departments in the hospital. The CIO has six different officers under his command to aid in this herculean task.

An annual drill ensures the smooth functioning of the GCD policy.

On the 21st of January, 2020 Rajagiri hospital had a meeting including major clinical and non-clinical departments to discuss the outbreak of Pneumonia of unknown aetiology in China and the potential implications on our hospital.

The points emphasized were:

1. Strengthening of GCD policy in the ER
2. Addressing any concerns in the ER or OPD regarding non availability of any items essential
3. How to implement screening and triaging of patients coming to the OPD

Following this, meetings were held in succession intermittently as the scale of the problem escalated and these discussions helped to shed light on the existent inadequacies and measures to combat them. In course of time, Team GCD have meetings daily to handle the current and dynamic scenario.



PREPAREDNESS

TO TACKLE THE COVID-19 OUTBREAK :

A PRIMER FOR HOSPITALS

Activities Undertaken in Rajagiri to deal with COVID 19

January 2020

1. Ensuring proper triaging of ALL patients in ER with travel history in the past 21 days
2. Shifting of suspect cases to Isolation room in ER
3. Maintaining a contact register to ascertain the staff exposed to a suspect case
4. Improving the communication and coordination during patient shifting to the Isolation zone as well as for radiological and laboratory investigations in sending samples only after alerting the department and with all precautions
5. Creation of a whatsapp group Team GCD to update the latest happenings in the hospital. The group has only select members. This is to create quick and efficient communication to major stakeholders promptly and yet avoid unnecessary panic
6. Taking into account the stock and availability of Personal Protective Equipment in ER and Isolation zone
7. Signage on the television screen at the lobby were initiated to increase the sensitivity of the general public regarding COVID 19.

February 2020

1. Training on donning and doffing of PPE and measures to combat anxiety in this stressful period were given to staff in ER, Isolation zone and Housekeeping departments.
2. Establishing proper communication channels with Government Medical College, Ernakulam regarding shifting of suspect patients and sample testing.
3. Updates regarding countries affected with COVID 19 were passed on to ER to aid during triaging of travel history.
4. Shifting of the Isolation zone from 5th floor Air borne Isolation Unit to 6th floor tower 1. This move was initiated anticipating an increase in the number of suspect or confirmed COVID 19 cases. Identified MICU on 3rd floor as location for patients needing ICU care

PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS

5. Rooms for donning and doffing and other necessary supplies required to set up Isolation zone were designated and area barricaded against accidental intrusion from other patients or staff

6. Identifying trained staff to work in the COVID isolation zone. This would minimize exposure to other staff who dealt with other patients.

7. Hand sanitizers were made available near the punching ports for all employees with signage that hands must be cleaned with sanitizer before punching. Though discussion regarding its discontinuation was raised as advised by the State government. The compulsory usage of hand sanitizer prior to punching was found to be more satisfactory than using manual registers. The same was communicated to district authorities and was approved

March 2020

1. Entrance Triaging of ALL patients, bystanders and Visitors by thermal screening and history of travel or close contact with travel by Operations staff. Upto 1800 persons have been screened in a day

2. The data of the screening of all persons are entered into a COVID 19 platform on laptops that is designed and supported by the IT department. The data on total persons screened , symptomatics and asymptomatics with travel or contact history is computed daily . All persons with respiratory symptoms are handed over a face mask.

3. Fever Clinic - All persons with fever or respiratory symptoms with travel history or contact history were referred to Fever Clinic

4. The fever clinic is situated near the health check up lounge. Dedicated non critical equipments are maintained there (Stethoscope, torch). A dedicated operation staff ensures its smooth functioning, entry of patient details into the hospital system and billing. At the end of the day, all details pertaining to fever clinic are send to the infection control team.

5. Duty roster with doctors from Dept of paediatrics and pulmonology / general medicine are obtained.

The assigned doctor sees all such cases and determines whether the patient requires admission or not.



PREPAREDNESS

TO TACKLE THE COVID-19 OUTBREAK :

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6. If requiring admission, the doctor is advised to contact the CIO and Infection Control team for coordinating the admission process. If not, the patient is advised home quarantine and details are sent to the district authorities.
7. All patients coming to the ER requiring Home quarantine are entered in a register and this information is also passed on to the district officials
8. Compulsory discontinuation of all visitors to the hospital and restriction of bystanders to only one. This is announced daily through the public announcement system as well as communicated through all patients by the Operations staff who called in for appointments and during admission.
9. A Hand hygiene alert is given every two hours so that all health care providers will perform hand hygiene as the alert is sounded.
10. Cohorting of all cases of fever or respiratory symptoms to 6th floor tower 1, away from the Isolation zone. This was to ensure that such patients in the event of suspicion of COVID 19 would not have passed the infection to several other patients within the hospital. Also health care providers giving care to all such patients were asked to mandatorily use droplet precautions at all times.
11. Reserve force – The hospital decided that half of the work force will remain as reserve force in their respective homes. The reserve force was advised to sign an undertaking stating that they were to remain in home quarantine during this period and were to return to duty in the following week or if called during emergency, whichever came first. The reserve policy has been extended as lockdown declared has been extended too.
12. All surgeries other than Emergency procedures were discontinued and postponed for two weeks in patients who had history of travel or contact history
13. Updation of all policies pertaining to COVID 19 on the intranet
14. Protocols have been developed to deal with suspect or confirmed COVID cases for Emergency surgery, Intubation, ICU management and treatment protocol.
15. Hydroxychloroquine prophylaxis has been initiated and distributed with all necessary advices for all staff who are willing to take it

16. Hand washing at the hospital entrance – Ground floor and B3 has been installed which is made compulsory prior to hospital entry for all. This is accompanied with thermal scanning for fever.



PREPAREDNESS

TO TACKLE THE COVID-19 OUTBREAK :

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17. The emergency department converted its waiting area to CURES (COVID Unit Room for Emergency). A Triage nurse is seated at the entrance adorned with full PPE (N 95, goggles, gown , gloves) who diverts all cases of fever or respiratory symptoms or travel, contact history with travel into the CURES area. Only other patients are directly shifted into ER
18. Stringent policy of face masks (Triple layer and N 95) as well as PPE have been taken
19. The hospital is manufacturing its own hand sanitizers in view of acute shortage. This task is by the coordinated activity of Dept of Clinical Pharmacology and Materials Dept.
20. Several sections of the hospital have been cohorted into one area. This ensures concentration of work force to one area and increased performance.
21. OP triaging has been modified to include travel history in the past 28 days. Also as per government norms, all persons in the the hospital are to wear a mask. This mask may be that of the persons or can be purchased at the triage desk. The mask is levied for 20 rupees.
22. **COVID 19 Tool** – A tool has been developed by the Clinical Informatics team. This tool has three modules (General, Health Care Provider and Physician) that aids in assessing the risk of acquiring COVID 19 infection as well as risk of morbidities due to the same. The tool is unique in that the Physician module has several laboratory and radiological parameters which may be used by a physician to ascertain a patient's risk on entering the necessary details in a span of minutes
23. **Telemedicine** - The Dept of Telemedicine has expanded its base from a single room to multiple rooms. Patients on priority basis have been connected to consultants through telemedicine after necessary arrangements in establishing connectivity. Over 20 calls each day occur through Telemedicine. Details of the interaction are also entered in the Hospital Information System. This allows proper documentation of all treatment given
24. Physician assistants are also returning calls of patients who are scheduled to meet the doctors but are unable to do so. Necessary concerns from patients are communicated to the consultants and action taken
25. **Medicine on Wheels** – Under the leadership of the Operations staff, there is a designated vehicle and staff who delivers medicine supplies from the store to patients living within a 10

PREPAREDNESS TO TACKLE THE COVID-19 OUTBREAK : A PRIMER FOR HOSPITALS



LA CLINIQUE MAURICIENNE, REDUIT, MAURITIUS
Dr. Anna George, Chief Operating Officer



The island country of Mauritius is one of the most popular tourist destinations in the world. Tourists arrive from world over throughout the year and many of the citizens also travel to Europe, US, Canada, India for vacation.

When news of the spread of COVID 19 in other countries was known, precautions were taken in February 2020 as follows:

1. Self-explanatory screening banner placed at the entrance for all patients & visitors to see and act accordingly
2. Hand hygiene measures strengthened by ensuring hand rubs were available throughout in all areas and the entrance. Also, hand hygiene steps were enforced throughout the clinic staff.
3. Use of appropriate PPE and availability ensured for all frontline staff.
4. Screening of all patients, visitors and staff at the entrance of the clinic using no touch infra-red thermometer and insisting hand hygiene for all.
5. Strict restriction of visitors in the clinic (only one bystander/visitor at a time)
6. Review of pharmacy stock and purchase of additional supplies anticipating a lock down



Hand hygiene enforced for all persons entering clinic



Screening patient/visitors at entrance of clinic

PREPAREDNESS

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It was in early March 2020 that the first case of COVID 19 positive was identified in Mauritius. Immediately a staff meeting was called in the clinic to explain the situation and avoid any panic. The mode of spread and precautions to be taken were discussed.

Confinement was announced on March 19th and complete Lock down (even supermarkets, shops closed) in the country was announced on 23rd March 2020. The government announced that only essential services should be working and only those having a valid work permit issued from the government during lock down will be permitted to travel for work. The clinic applied for this permit online for all the employees and the permit was received.

The next challenge was transport facility for staff. Due to the lock down there were limited or no public transport. A contract van was employed for pick up and drop of staff and the department heads were asked to put the roster in such a way to enable staff in a common route or geographical area to be included. Arranging adequate staffing, roster management and transport arrangements were reviewed on a daily basis to ensure adequate work force was deployed for the functioning of the clinic.

The following protocols were implemented within the clinic in line with the government guidelines and circulated among doctors and staff and strictly monitored:

SCREENING OF PATIENTS

a. Self-screening banner at the entrance for patients to be aware and report to Casualty or reception after taking necessary precautions.

b. Ask the patient the following questions to all patients:

- Has the patient travelled outside Mauritius within the last 14 days?
- Has the patient come in contact with anyone who has travelled to the high risk countries (Italy, China, France, Europe, Iran, etc) within the last 14 days?
- Does the patient have a recent onset of fever, sore throat, dry cough, shortness of breath, difficulty in breathing or myalgia?

c. If a patient contacts you telephonically:

- Ask the same screening questions as mentioned above
- Do not ask them to come visit you at the Clinic or get admitted to Clinique Mauricienne
- If the answer to the above questions is a yes then they are suspect cases. Explain to them that they and their family members need to be assessed by the Ministry of Health as per government protocol.
- Give them the helpline number 8924 (active from 9am to 4pm). No clinic or hospital is permitted to do this testing.
- If you are in doubt as to what to do, take down the number of the patient and tell that you will revert in a short while. Call the Medical Director for advice and then call back the patient.

PREPAREDNESS

TO TACKLE THE COVID-19 OUTBREAK :

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d. Patient meeting you at your outpatient office

- If yes to the screening questions asked, explain that the patient and his family will have to be isolated.

- Give him a normal face mask to wear and educate about use of hand sanitizer as recommended. Also, ask the patient to use the hand sanitizer then itself.

- Wash your own hand thoroughly with soap and water, avoid touching your face with your hands and inform the Casualty that you have a suspected case and needs to be isolated immediately.

- The Casualty staff wearing appropriate PPE will come to accompany the patient to the isolation room.

You need to assess the patient further (with appropriate PPE) and decide if the case is a suspected COVID-19. If yes, you will have to call the Regional Public Health Superintendent at Candos Hospital on 4253031 who will decide if the Rapid Response Team (RRT) will be send or not. If the decision is not to proceed with RRT, the patient will have to be treated as normal. For immediate assistance for any suspected cases of COVID – 19

Days	Time	Hotline number
Weekdays	9am to 4pm	8924
Days	Hospital	Hotline Number
Weekdays after 4pm Weekends and public holidays	Dr. A.G Jeetoo (Port Louis)	8925
	SSR National (North)	8926
	Flacq (East)	8927
	Victoria (Plaines Wilhems)	8928
	J.Nehru (South)	8929

Tele consultation services were extended to the community to receive medical advice at the comfort of their home.

An awareness video was also made in house for precautions to be taken during lock down and circulated on social media.

The outpatient numbers were reduced to a bare minimum, only urgent/emergency cases were being entertained. However, because of the effective arrangements done for staffing and supplies, the average occupancy of the clinic remained between 40- 50%. The government extended their support to all private companies by paying half the salaries of employees for the month of March in order to ensure employees are paid in full despite the dip in revenue.



SAFETY - A WAY OF LIFE



Mr. K.P. Dominic

Chairman – Safe & Secure Foundation,
Immediate Past President – FSAI,
Founder member – FSAI

As we are celebrating Safety Week in work places, more emphasis is given to contain the Fire or resist the spread of fire through the corridors or common areas for a prescribed period of time. Thus, enough time is given for safe evacuation of people or mobility impaired persons in the building. That brings specific implications for those responsible for health and safety practices within a building.



In India, 37 million people of working-age have a disability representing almost 18% of the entire working-age population. It's estimated that around 4.1 million of this number are currently in employment, 70% of this population are unemployed

Fire Evacuation Procedures:

1. IF YOU DISCOVER FIRE or smoke follow R.A.C.E. (R: Rescue anyone who from danger, A: Alarm by pulling the closest fire alarm pull station, C: Confine the fire and smoke by closing doors E: Evacuate away from smoke and heat Extinguish the fire using a fire extinguisher if life safety is threatened, the fire is small and you have a clear path to escape

2. WHEN THE FIRE ALARM SOUNDS, follow R.A.C.E. Procedures and listen to the fire alarm announcements

3. DO NOT USE THE ELEVATORS. Use of Evacuation Chair is recommended

4. LOOK FOR EXIT DOOR leading from your floor to the corridor. Before opening check if it is hot or smoke is seeping in, do not open the door. If you become trapped in your office and cannot reach the fire exit, keep the door closed and seal off any cracks. Use the telephone in your office to call the local Fire Department by dialing 101/102 and give the name and address of the building, as well as your floor and the officenumber.

5. IF THE DOOR FEELS COOL, open cautiously. Be braced to slam it shut if you feel heat pressure against the door. If the corridor is clear, proceed with the building evacuation instructions.

6. PHYSICALLY CHALLENGED: A responsible person or persons who work in the same area as the disabled should be assigned to assist in the event of fire. The disabled are to be taken to the fire exit and remain on the landing until assisted by trained staff by using Evacuation Chair.

7. IF CAUGHT IN SMOKE OR HEAT, stay low where the air is better. Take short breaths through your nose until you reach an area of refuge.

Evacuation: Hospital Buildings:

In buildings where immediate evacuation is not required, patient, visitor, employee, and staff evacuation shall be initiated only when a danger due to fire or smoke has been identified or code red confirmed has been announced in their area.

SAFETY - A WAY OF LIFE

If evacuation is required, it shall be conducted as per the following guidelines:

- **Horizontal Evacuation** - Horizontal evacuation is preferred over vertical evacuation. Patients will be moved to an adjacent safe smoke compartment on the same floor, away from the Fire Scene.

- **Vertical Evacuation** - Only if necessary and as directed, patients will be moved to another floor - typically a floor below the Fire Scene. If evacuation to a lower floor becomes necessary, use of the elevators will be coordinated with the PFD based on the location of the fire and the amount of smoke in the area of the elevators.

- **Complete Patient Evacuation** - Should the emergency condition be of a severity such that the building is endangered and cannot continue to be occupied, a complete evacuation shall be initiated. Directions given to evacuate the building by the Fire Department shall be carried out in an orderly fashion to ensure that the patient care is not compromised due to the evacuation. Patient receiving locations shall be coordinated with the Hospital Incident Command structure.

- **Simultaneous Evacuation** - This strategy is appropriate for many types of workplace facilities, normally smaller premises where personnel and visitors can escape quickly and immediately to a place of total safety in open air and where it may be expected that all people inside are able to (and will) evacuate quickly to outside the building to a place of total safety. This strategy may also be appropriate in more complex premises for visitors and staff not required to assist with evacuation of other residents.

- **Delayed Evacuation** - Personnel remain in fire protected rooms or refuges until the danger has passed or until they can be taken to a place of total safety. Exceptionally, in some situations it may not be desirable or practical to evacuate some individuals immediately (e.g. because of physical/medical conditions, pregnancy etc.). In these circumstances, it may be appropriate to allow them to remain in their current location while the emergency is dealt with and the danger has passed, or to allow for the additional time necessary to prepare them for evacuation. In such circumstances, it will be necessary to provide enhanced levels of structural fire protection to the individual room(s). However, where this strategy has been adopted; a suitable evacuation plan will still be required. Whichever system of evacuation you use must be supported by suitable management arrangements. It is essential that your evacuation strategy is fully detailed in your emergency plan and included in your staff training program.

General Patient Evacuation Guidelines:

- Patients are to be evacuated horizontally by stretcher, wheelchair, or other method of transportation to an adjacent smoke compartment. Patients in immediate danger (due to smoke or fire) shall be removed first.

- Ambulatory patients should be accompanied or directed to an adjacent smoke compartment.

- Non-Ambulatory patients should be moved using wheelchairs or stretchers when available to an adjacent smoke compartment.

- Critical patients, who will require the most resources to move, can be kept in their closed patient room until they can be safely moved. These patients may be the last to be evacuated, if they are not being directly affected by fire or smoke.

- Patient evacuations shall be coordinated with nursing to ensure patient needs are met at the location to which they are being relocated.

EMERGENCY EVACUATION PLANS:

The following self-assessment is intended to assist emergency managers and planners with evaluating, developing, and updating emergency plans, programs, and services to make them inclusive so they meet the needs of the whole community. Specific areas of consideration include:

Preparedness

- External Outreach
- Training & Exercise
- Planning

Recovery

- External Outreach
- Disaster Recovery Service

Response

- Shelter-in-Place
- Evacuation Support
- Emergency Shelters

GEEP (Public/Visitor)

Generic Emergency Evacuation Plan based on foreseeable evacuation issues with people present in building

The purpose of a Generic Emergency Evacuation Plan(GEEP) is to enable visitors to the building with restricted mobility or those who may not be able to evacuate unaided to become familiar with the layout, evacuation procedures, available equipment and communication devices.

Points to consider:

- *Clearly visible evacuation procedures*
- *Consider persons with sight/hearing impairment*
- *Adequate staff training in use of assistive equipment and procedures*
- *Regular reviews especially if the building has in any way been modified*
- *Visitors will often be totally unfamiliar with the layout of your premises*
- *Visitors share their needs upon entry*

PEEP (Staff)

Personal Emergency Evacuation Plan based on person specific risk assessment

Points to consider:

- *To evacuate safely or reach a safe refuge at sufficient speed*
- *To evacuate the building occupants to an assembly point*
- *Test and practice procedure with staff member if possible*
- *Review your PEEP regularly*
- *And after any planned or emergency drill. Make changes as needed.*

ENGINEERING SYSTEMS IN A HOSPITAL AND ITS SAFETY



Mr. Vinod Kumar KB

Consultant-Facility Management & Safety

RAJAGIRI HOSPITAL,

Aluva

ENGINEERING SYSTEMS IN A HOSPITAL AND ITS SAFETY

A hospital's engineering systems are its lifeline. It shall be a safe and secure system and shall be one which is robust and meets the engineering demands of the Hospital. The Engineering systems need to be designed, installed, maintained and then replaced in a timely manner based on its life cycle. This featurette explains how the engineering systems in a hospital need to be and how safe they should be in order to ensure that the hospital functionality is not compromised at all.

The safe upkeep of the engineering systems in the hospital is as important as the care of a patient who visits the Hospital for his/her cure.

Why are the engineering systems so important in a Hospital?

Let us see this example - In case the humidity levels increase beyond 60% inside an operating room, the fungal growth will compromise the safety of the patients, the doctors, the nurses, the technicians equally. The operating room itself becomes a danger zone. This means that the HVAC system shall be designed aptly, and also maintained adequately, without any compromise, in order to maintain the desired indoor environmental conditions at a constant level at all times, even when surgeries are not being carried out in the operating room.

This is the case with any engineering system in the hospital, and it needs proper care, right from the design stage in order to make the hospital a robust building which can cater to the precise engineering needs of the patient, and staff alike, including the visitors and vendors. So, let's identify how our engineering systems can be set to be a safe and reliable one, in our hospital building.

The engineering system and the engineering team shall ensure the following criteria as prime demands:

- Provision of a safe and secure environment for patients, their families, staff and visitors.
- Regular facility inspection rounds and appropriate action to ensure safety.
- Provision for safe water, electricity, medical gases and vacuum systems.
- Programme for medical and utility equipment management.
- Plans for emergencies & works towards measures on being energy efficient.
- Planned upgradation and disposal of equipment
- Planned maintenance plans (both preventive and break down of equipment)
- Planned process of reducing hazardous material usage and its waste management

The design aspect of Hospitals' Engineering system:

The hospital team shall design and install proper and adequate engineering systems that meet the hospital's requirements. Some of the largest engineering systems are listed below:

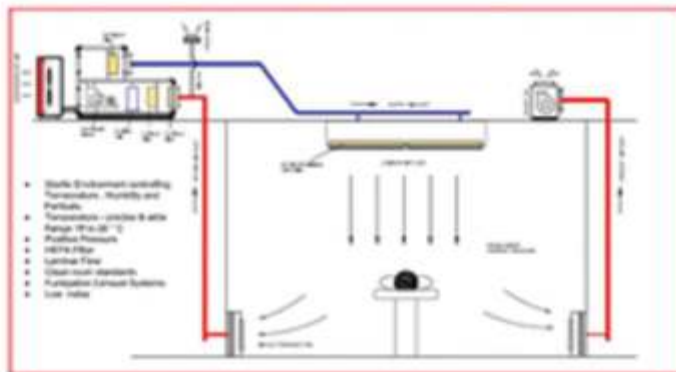
Electrical systems, HVAC systems, Plumbing & sanitation systems, Firefighting systems, Civil structure, Information technology systems, Lifts (vertical transportation), Pneumatic chute systems, Dumb waiters, Steam generating boilers, Bio-medical systems, Sterilization systems etc.,

ENGINEERING SYSTEMS IN A HOSPITAL AND ITS SAFETY

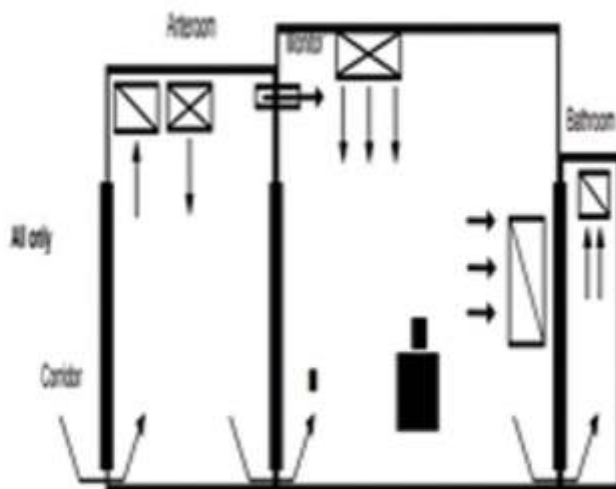
A few of the illustrations below are some of the prime engineering systems in a Hospital:



Laminar flow pattern inside an Operating Room



HVAC system for an Operating Room



A negative pressure Isolation Room



A treated fresh Air Handling Unit



A Chiller inside the Air Conditioning Plant



Water Filtration System



Liquid Medical Oxygen Plant

ENGINEERING SYSTEMS IN A HOSPITAL AND ITS SAFETY

The basic standards related to engineering system selection :

The appropriate spacing shall be provided for each of these utility services as per Indian or International standards. Some of the prime standards are listed below:

- Indian Standards (IS 12433) formulated by Bureau of Indian Standards (for 30 and 100 bedded hospitals and other standards).
- IS 10905 for basic requirements for general hospital buildings.
- Indian Public Health Standards
- ASHRAE(HVAC)
- National Building code (NBC)
- NFPA (Fire) etc.....
- IS: 2379-1990:Colour code for the identification of pipelines (medical gas systems) etc.

Alternate source of supplies :

The Hospital shall have the facility with alternate sources for the following main supplies:

- Electrical supply
- Water supply
- Medical gas supply

These alternate service provisions shall be tested at regular intervals for ensuring that these are available during hard times.

Preventive and break-down Maintenance :

All Engineering systems shall have its performance parameters logged in at regular intervals, and monitored for any abnormalities, ensuring zero or minimum downtime. The preventive maintenance shall be carried out at predetermined intervals or according to prescribed criteria and intended to reduce the probability of failure or the degradation of the functioning of an item. (British Standard 3811:1993).

All building services shall have a maintenance plan ensuring that these systems do not fail. It is advisable to have redundancy equipment for all critical engineering systems. The response times for each break down shall be set for a minimum duration to ensure quicker uptime of the engineering systems, such a 30 minute response and

rectification time for an electrical service problem, or a 45 minute response and rectification time for a HVAC problem etc.

The Annual Maintenance Contracts (AMCs) for all engineering systems shall be up-to-date to ensure zero or lower downtime.

Calibration of systems :

It is mandatory to have annual calibration and verification of most of the systems specifically of the following:

- HEPA filters
- Differential Pressure systems (inside the operating rooms, negative pressure isolation rooms etc.)
- Pressure gauges on the equipment's (chillers, pumps, etc.)
- Biomedical equipment
- Metering systems

Facility rounds :

The team shall conduct facility rounds (atleast twice in a year). The check lists shall be adequate to ensure all areas of the hospital building is visited during the facility rounds. Moreover, the checklist shall cover items which are safety related, equipment upkeep, calibration needs, health and infection related, emergency preparedness in each department, etc.

The team shall comprise of the following members-engineering, safety, infection control, operations, housekeeping, waste management etc.

They shall ensure all areas pertaining to the building engineering facilities are visited. The problems relating to functional performances, building safety, patient & staff safety etc., are listed, corrective action along with definite timelines to repair or replace systems and procedures shall be documented in a meticulous manner.

The Hospital Safety Committee :

This committee shall comprise of the CEO (as the chairperson), Patient safety officer, Safety officer, Engineering head, Operations head, Lab head, Infection control head, Housekeeping & Waste management team leader, Radiation safety team leader, as the prime members.

ENGINEERING SYSTEMS IN A HOSPITAL AND ITS SAFETY

They shall ensure:

- Timely conduct of the facility rounds,
- Ensure that actions are taken timely (which are the outcome of the facility rounds)
- Training and awareness campaigns are held as per the requirements and protocols
- Audit all safety related matters and report to the Management about all gross non compliances and ensure appropriate actions are taken which does not compromise the hospital safety
- Conduct safety mock drills and conduct awareness and training based upon deficiencies found in the mock drills
- Ensure adequate and proper PPEs are used at all required locations, and ensuring that training is imparted to the end users for proper use of these PPEs
- Ensure safe upkeep of all hazardous materials, the correct use of all related MSDS, the use of all spill kits properly, which shall ensure safety in the event of a spill or an accident near the location of the usage of hazardous materials
- Ensure safe and clean work procedures are followed during any upgradation or repair, inside any patient care area, without compromising the patient and staff safety. In this case, the infection control team also play a major role to ensure that good care is given to avoid hospital acquired infections

- Ensure evacuation procedures are documented, practiced for each and every patient care area in the Hospital to ensure that the PREPAREDNESS during an emergency evacuation is foolproof

The Safety Education Procedure:

We need to ensure that safety is a must for each and everyone in the Hospital, be it the patient, bystander, staff, vendor, visitor etc. This calls for strict and compulsory training which only makes each and every one in the Hospital more and safer.

This needs the support of the following members: Safety team, H R team, Infection control team, Engineering team, Housekeeping team, Waste management team, Finance team and the Management

NO COMPROMISE TO HOSPITAL SAFETY :

Primarily it is important to note that there shall be **'NO COMPROMISE TO HOSPITAL SAFETY'**

Let's put our hands and minds together for a safer workplace, which eventually benefits our patients and their families too.

"Hope for the best, plan for the worst"- NFPA



SAFETY IN HOSPITAL INDUSTRY AT COVID TIMES -A NEED TO DIVE DEEP FOR SUSTENANCE



Ms. Keerthi D Souza

Managing Director,
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India

The Pandemic across the world has put the Health care establishments and the Health fraternity in the frontline of the war against Covid-19. We do not want to have additional disasters such as Fires to add to the misery of pandemic related issues. This brings coherence of Safety sustenance and readiness of hospital to face any fire emergency with more vigilance than any time in history. Fire accidents world-wide or in India have been occurring without any notice² and have been having devastating impact. Most of these fires are preventable as described by researchers³.

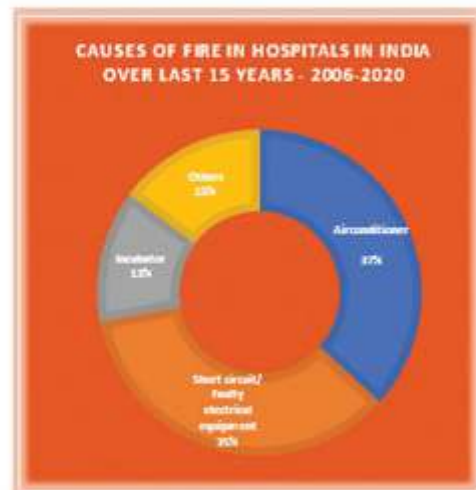
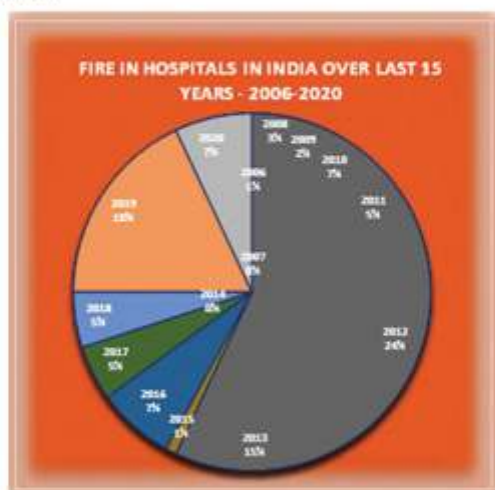
Unlike developed countries, Indian health care system has not given priority to safety standards. It has both parties contributing to this status. There is a huge knowledge gap in knowing about statutory requirements of the country applicable to healthcare providers. Hospitals only get to know safety violations and deviations related intricacies after occurrences of fire or external audits reporting non compliances. A quick look into the trend of the last five year's fire occurrences in India establishes the fact that the occurrences come to light mostly through media reports. Media reports only include major fire incidents and majority of the smaller fire incidents or those in remote areas go unreported.

After the increased number of occurrences in 2012 and 2013, a rise in numbers was seen in 2019 also. Majority of the fires were attributed to electrical type of fire.

The findings I could bring in from the study conducted over 100 fire incidents in Indian hospitals that occurred over last 15 years from 2006-2020 has revealed results related to injury, absence of root cause in media and causes of fire.

- 66% of the occurrences have resulted in injuries.
- 56% of the injuries have been reported in the media with root cause.
- 98% of the causes revolve around electrical source of fire.
- 37% of the time the fire has been linked with air conditioners and
- 35% of the time with short circuit or faulty or substandard electrical devices used.

The researchers in the past who studied the causes of fire across the world and in India³ have hypothesized that oxygen (O₂) enrichment of air is primarily responsible for most of the fires, particularly in intensive care units. As the amount of ignition energy needed to initiate fire reduces in the presence of higher O₂ concentration, any heat or spark, may be the source of ignition. The split air conditioner is the source of many such fires in the ICU, neonatal intensive care unit (NICU), and operating room (OR), and short circuit in several other types of equipment used in hospitals have similar vulnerability. This confirms the fact, that we need to focus on safety through a systematic approach even in times of COVID Pandemic, as a preventive tool. Health care sectors' unwillingness to invest in safety persists even today.



List of Fire occurrences in hospitals in India 2006-2020 & the various Causes - Sources: News Media and Research journals³

SAFETY IN HOSPITAL INDUSTRY AT COVID TIMES -A NEED TO DIVE DEEP FOR SUSTENANCE

Leadership of the Health care establishments through their vision, mission, policy and objectives and performance indicators hold a great opportunity to give the hospital safety the required visibility. The best approach followed is the application of **PDCA** across the life cycle of the hospitals.

PLAN – WHAT NEEDS TO BE PLANNED

Healthcare systems needs to consider Healthy and safe working environment right from the blueprint or the design stage. Planning requires conceptualization of blue print considering the entire life cycle of the establishment starting from its cradle to grave, i.e. from its design, commissioning, operation, Services, maintenance until the demolition. That is the right phase to incorporate National Building code- schedule 4, or international requirements such as NFPA, Fire prevention and evacuation guide – PAHO4, Environmental controls, energy efficiency, water efficiency, waste management, Eco friendly construction equipment and preventive care for Fire & emergency Controls.

Glimpse of Fire Compliance across some sample cities across India – Scenario 2019 (Source- News Articles)

Feb, 2019	Gautam Buddh Nagar, UP	Out of 350 hospitals- Final notices issued to 160 and 50 were issued closure
Apr, 2019	Thane, Mumbai, Maharashtra	Out of 380 hospitals- Final notices issued to 181 and 15 were issued closure
May, 2019	Surat. Gujarat	40 hospitals were issued Notice
July, 2019	Karnataka - Bangalore	Out of 246 hospitals – Final notices issued to 156 and 81 were issued closure
Oct, 2019	GHMC limits, Hyderabad	Out of 1600 hospitals – Final notices issued to 1150 and those who would not respond with valid NOC were to be issued closure

Some of the inputs & Directives available for consideration during Design Phase:

- * The Clinical Establishments (Registration and Regulation) Act, 2010
- * National Building Code, 2016 - Schedule 4
- * Indian Public Health Standards (IPHS)
- * Medical Council of India (MCI) - Standard Requirements for Medical College
- * Bureau of Indian Standards (BIS) - IS: 10905 - Recommendations for Basic Requirements of General Hospital Buildings Part I & II
- * International organization for Standardization – ISO 45001:2018 – Occupational, Health and safety management systems
- * Indian Green Building Guidelines
- * International Health Facilities Guidelines:- <https://bit.ly/2XKLnWV>

Operation & Maintenance Stage – Leadership need to ensure safety in Operation Phase of Planning by giving due attention to Safety vision, Policy, objectives, responsibilities and manual procedures for operation maintenance including emergency preparedness, implementation plans, monitoring plans, trainings of employees, contractors, patients; communication protocols, visuals, and performance review systems for Fire & safety prevention.

Dismantling Stage: It is the end of Life cycle, planning of how to dismantle that which needs to be reused, recycled and how safety needs to be the core of dismantling execution.

DO – WHAT NEED TO BE IMPLEMENTED

Leadership need to look at implementation of inputs considered in planning across the life cycle stages and ensure integration of safety in all the activities and services starting from Finance, Procurement, administration, Operations, HR, Maintenance and compliances. Safety budget needs to be an integral part of Leadership's Financial planning.

SAFETY IN HOSPITAL INDUSTRY AT COVID TIMES -A NEED TO DIVE DEEP FOR SUSTENANCE

Strong Turnaround Strategy: Leadership need to brainstorm to arrive at the turnaround strategy with special focus on safety, sustainability and social well-being at its core by reviewing its current performance in all functions.

Risk based thinking in establishing the hierarchy of controls: Based on the context of the hospital considering the internal & external issues, stakeholder needs & expectations – Employers should assess the hazards to which their workers may be exposed; evaluate the risk of exposure; select, implement, and ensure workers use controls identified after careful evaluation to prevent exposure⁶.

Communication & Consultation: Safety function needs to adopt Consultation, participation with doctors, nurses, staff, housekeeping, maintenance, and all other functional representatives in conducting Hazards and risk assessment and designing the controls.

Operational Controls: Operational procedures laid down need to be specific and tested for its adequacy prior to implementation. Adding value to hospital safety would be Integrating sustainable procurement, behavioral safety, Ergonomics, Patient safety, Health surveillance of the staff including that of Emergency response team. Study by NIOSH indicates 89% of the firemen out of the 41% of the fire investigations conducted from 2006-2014 had cardio vascular occurrences⁷.

Emergency preparedness and response: Hotlines for emergency, codes for communication during emergency, public addressing system, Central Control room to handle emergencies situations and conducting evacuation drills that would help check the preparedness challenges.

CHECK - What plans have you executed? Do they mirror the prioritization of risks, opportunities and impacts on actions and objectives? Have they been revised to reflect (current and possible) legal directives and recommendations? Is the procurement of products and services done via responsible purchasing? Are you following the hierarchy of controls, management of change and emergency preparedness in response to new and evolving information? Are your actions working? Are leaders and other workers executing as planned? Do the processes need to be updated and are your policies and practices delivering the expected results?

Monitoring measurement, analysis and evaluation of results is a very critical part of safety. Conducting self-audits, External third-party helps management have a SWOT analysis periodically on their table. The additional tools for checking could be inspections, walk through, cross departmental audits, external third-party audits, certification to 5S, British 5 star and ISO 45001:2018.

CAHO's established a fire audit tool to enable Self-assessment by the hospital followed by physical verification by empaneled Safety auditors. Motto of Self-assessment was to enhance competency within hospital and tools are made affordable to all levels of hospitals pan India and open to all.



Fire Audit at SreeRenga Hospital, Chengalpattu, TN, India

ACT- Leadership essentially need to devote their time and resources for reviewing the non-conformities arising from various sources like audits, inspection, monitoring etc. and enable closing them after appropriate review of causes to avoid reoccurrence.

Review –The top management needs to periodically conduct a review on all the set of agendas defined in the International

Standard ISO 45001:2018 – Occupational health and safety management system to ensure safety improvement.

References:

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2. Burn Treatment, Deadly hospital fires are frequent occurrences around the world, NFPA Journal, Dec 2019-<https://bit.ly/3eCNYYP>
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5. Fire Risk Assessment in High-Rise Hospitals, NFPA 101, Tehran, Iran, 2018- <https://bit.ly/3eCNG4b>
6. Occupational safety and Health Administration – Covid-19, Control and prevention in Healthcare, 2020 -<https://bit.ly/3ahcHyt>
7. NIOSH- Fire Fighter Fatality Investigation and Prevention Program, Recommendations-Feb, 2019, <https://doi.org/10.1016/j.jsr.2018.10.013>

CAHO ACTIVITIES – A GLIMPSE

(JANUARY 2020 - MARCH 2020)

CAHO AFFILIATED CENTRES FOR QUALITY PROMOTION (CQP) INAUGURAL



Bombay Hospital, Indore (18th Jan)

LAUNCH OF NEW TRAINING PROGRAMS

Workshop on Quality Tools & Techniques



Kerala Institute of Medical Sciences, Trivandrum– 24th Jan, 2020

CAHO ACTIVITIES – A GLIMPSE

(JANUARY 2020 - MARCH 2020)

MODULE DEVELOPMENT OF NEW TRAINING PROGRAM



Module content development meet in collaboration with Raman & Weil
at Dr. Mehta's Hospitals, Chennai (16th Feb)

CAHO -HEALTHCARE SECTOR SKILL COUNCIL (HSSC) INTERACTION



at Radisson Blu Hotel, Indore (18th Jan)

CAHO ACTIVITIES – A GLIMPSE

(JANUARY 2020 - MARCH 2020)

NATIONAL CONFERENCE

Theme : *"Redefine & Rethink Healthcare Practices To
Attain Quality Healthcare"*



at Radisson Blu Hotel, Indore (18th Jan)

www.caho.in

CAHO ACTIVITIES – A GLIMPSE

(JANUARY 2020 - MARCH 2020)

MEETINGS & INTERACTIONS



JW Marriot, Bangalore (13th Jan)



AHPI Global Conclave - Ramaiah Medical College, Bangalore (7thFeb)



Governing Committee Meet – Ramaiah Medical College, Bangalore (8thFeb)

CAHO ACTIVITIES – A GLIMPSE

(JANUARY 2020 - MARCH 2020)



Meeting with NABL- CEO & Director – NABL, Gurgaon (14th Feb)



Meeting with Chitkara University officials at Fortis Hospital, Mohali (25th Feb)

CAHOCON 2020 PREPARATORY MEETINGS



Venue & Facility Committee Meet
- Renai Medicity, Kochi (14th Jan)



Pre Conference Workshop
Committee Meet- Aster Medcity, Kochi (14th Jan)

CAHO ACTIVITIES – A GLIMPSE

(JANUARY 2020 - MARCH 2020)



Organizing Committee Meet- Aster Medcity, Kochi (15th Jan)



Awards Committee Meet - Baby Memorial Hospital, Calicut (20th Jan)



Organizing Committee Meet - The LaLiT Ashok, Bangalore (8th Feb)

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CSR WELLNESS PROJECT

A lifestyle of good health! A life full of joy and happiness !!

To focus on incorporating contemporary ideas on integrating the physical, mental, social and economic aspects of individuals that synergistically contribute to their sustained wellbeing, a two hour sensitisation programme to proactively coach school/ college-going adolescents on leading a healthy lifestyle for a life full of joy and happiness were conducted at 25 locations along with partnering hospitals of Tamil Nadu.

A total of 4350 school students & 4285 college students were trained.

S. No.	Location	Hospitals	School	College
1	Perundurai	Kalyani Kidney Care Center	Siddhartha School, Erode	Kongu College, Perundurai
2	Gobichettipalayam		Sharadha Matriculation School	Dr. R A N M arts and science College, Erode
3	Rasipuram	Trichy SRM Medical College Hospital & Research Centre	Mukkulathor GHS School, Thiruverumbur	Thiruvalluvar Government Arts and Science College
4	Thiruchengode		MDV Hr. Sec. School	Subasakthi Arts and Science College, Kulithalai
5	Paramathi velur		Kandaswamy Kander's Girls Hr. Sec. School	Kandaswamy Kander's Government Arts and Science College
6	Tirunelveli	Annai Velankanni Multispeciality Hospital	Government Girls High School, Nadukkallur, Tirunelveli	Ranianna Women's College, Tirunelveli

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CSR WELLNESS PROJECT

7	Palladam	Ganga Hospital	Govt. High School, Senjerimallai, Palladam	Ramakrishna Mission College
8	Mettupalayam		Govt. High School, Velliankadu, Mettupalayam.	Avinashilingam aided college
9	Nagercoil	Dr. Jeyasekharan Hospital	S.M.R.V. Hr.Secondary School, Vadasery, Nagercoil.	Holy Cross College, Nagercoil.
10	Poonamallee	Dr. Mehta's Hospitals	Government Girls Higher Secondary School, Poonamallee.	-
11	Kanchipuram	Narbhavi Multi Speciality Hospital	Anderson Hr. Sec. School, Kancheepuram, TN	Pachaiyappas College For Women, Kanchipuram
12	Guduvancherry	Sree Renga Hospitals	Sri Ramakrishna Mission Girls Hr. Sec. School, Chengalpattu.	RV Govt Arts College, Chengalpet
13	Thiruvannamalai		Municipal Girls Hr.Sec. School, TV Malai, Tamil Nadu	Government Arts College, Thiruvannamalai, TN
14	Redhills	Vijaya Hospital	Dr. Sivanthi Aditanar Mat Hr Sec School, Puzhal, Chennai -	Sri Nallalaghu Nadar Polytechnic College GNT Road, Thandalkalani, Puzhal,Chennai -
15	Pudukottai	Be Well Hospitals	Govt. Hr. Sec. School, Vallathirakottai, Pudukottai.	H.H. The Rajah's College, Pudukottai.
16	Namakkal	SKS Hospital and Post Graduate Medical Institute	Municipal Higher Secondary School, Fort, Namakkal	Namakkal Kavignar Ramalingam Government Arts College for Women.. Namakkal

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CSR WELLNESS PROJECT

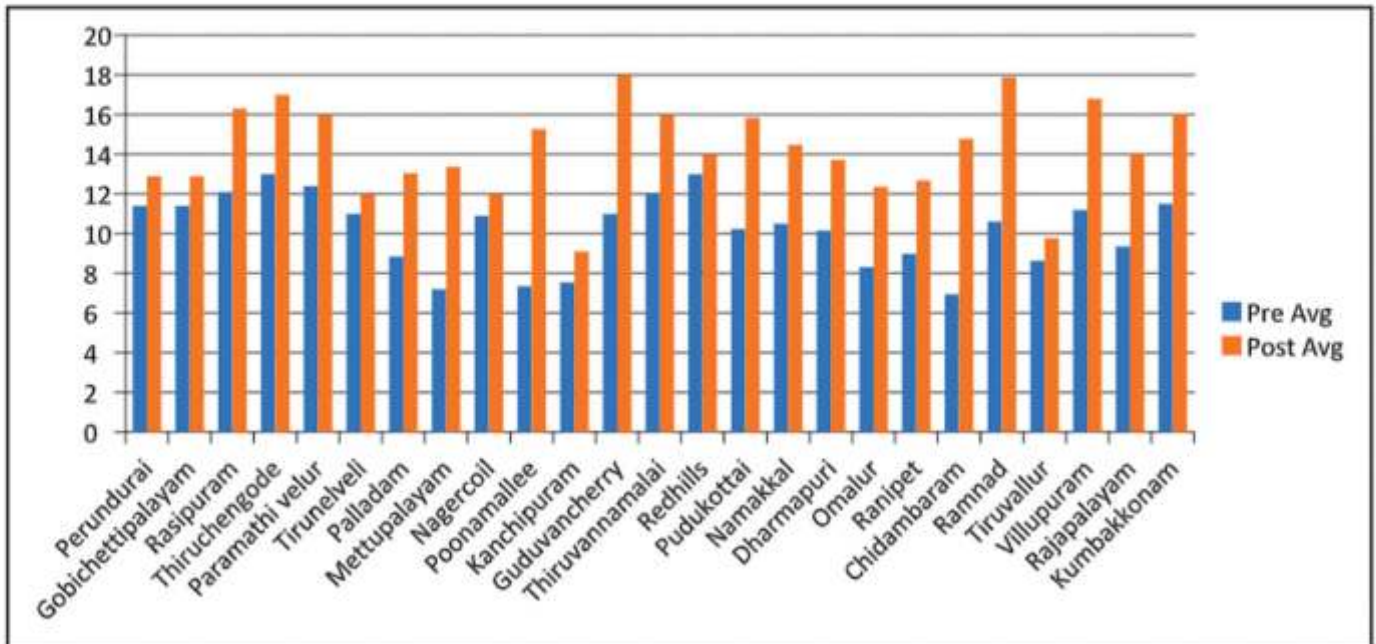
17	Dharmapuri	SKS Hospital and Post Graduate Medical Institute	KGV Government Higher Secondary School, H. Pudhupatty, Pappireddipatty Taluk	Government Arts and Science College, Pappireddipatty
18	Omalur	Sravan Diabetes care and Research Centre	Fatima Girls Higher Secondary School	Periyar University
19	Ranipet	Scudder Memorial Hospital	VRV Girls Hr. Sec. School- Ranipet	Voorhees College, Vellore
20	Chidambaram	Mahatma Gandhi Medical College and Research Institute	Chidambaram Govt. Boys Hr. Sec. School, C- Mutlur, Cuddalore District Chidambaram,	Government Arts college, C-Mutlur, Cuddalore District, Chidambaram
21	Ramnad	Meenakshi Mission hospital, Madurai	Kadaladi Government Higher Secondary school	Sethupathy Arts and Science College
22	Tiruvallur	Holistic Medical Center	M.K.V Government Higher Secondary School, Arani	LNG Arts & Science College, Ponneri
23	Villupuram	New Medical Center	Veda High School, Kottakuppam, Vilupuram	IFET College of Engineering
24	Rajapalayam	Meenakshi Mission hospital, Madurai	Sethur Sevungapandiya school, Rajapalayam	Rajapalayam Rajus College, Rajapalayam
25	Kumbakonam	Meenakshi Multispeciality Hospital, Tanjore	Thiruvaduthurai Aatheenam Govt. Hr. Sec. School	Tharmapuram Gnanambikkai Govt. Arts College.

A two-hour module was developed by the senior members of CAHO and it was designed to be interactive and engage with students using technology tools like Kahoot, videos, demonstration and role play. The partnering hospital arranged for permissions, following which "E-Train the Trainers program" was arranged and all the trainers from 25 locations attended the 2-hour session. The two-hour interactive module content, Pre-test, Post-test Questionnaire (Tamil and English) were shared with the hospitals.

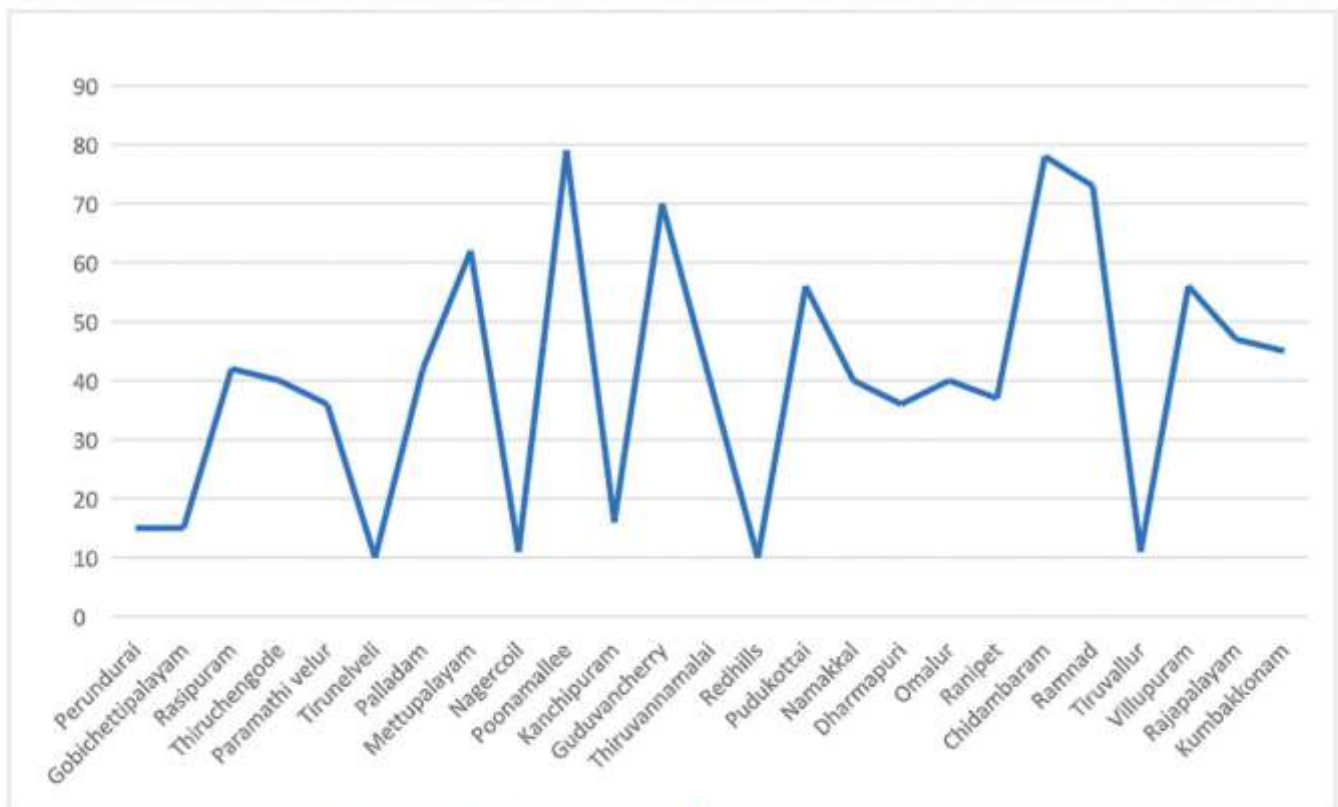
"LIVE LIFE" an App was developed by CAHO to facilitate the wellness project. This App was used to conduct the pre-test and post-test. Pre and post test scores helped in understanding the effectiveness of training.

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CSR WELLNESS PROJECT



School : Pre- & Post Test Average Results

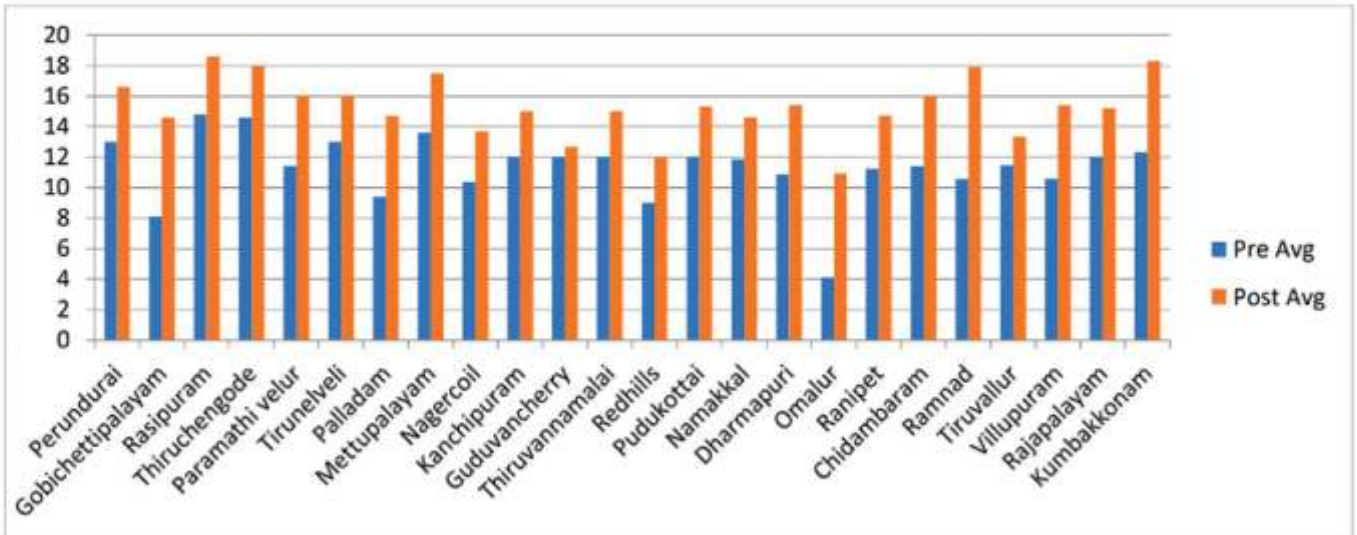


School : Percentage of Improvement

The impact was training was best in Government Higher Secondary School Poonamalle with 79%

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CSR WELLNESS PROJECT



College : Pre-& Post Test Average Results



College : Percentage of Improvement

The impact was training was best in Sethupathy Arts and Science College Ramnad with 73%

GALLERY: CSR WELLNESS PROJECT



GALLERY: CSR WELLNESS PROJECT



GALLERY: CSR WELLNESS PROJECT



GALLERY: CSR WELLNESS PROJECT



GALLERY: CSR WELLNESS PROJECT



GALLERY: CSR WELLNESS PROJECT



CSR WELLNESS PROJECT: PARTNERING HOSPITALS



TRAINING PROGRAMS

(JANUARY 2020 - MARCH 2020)



CPQIH Basic Training Program - Nanavati Super Speciality Hospital, Mumbai (3rd - 5th Jan)



Basic CPHIC Training Program - Royal Care Super Speciality Hospital, Coimbatore (11th Jan)



Basic CPHIC Training Program - PBMA's H.V. Desai Eye Hospital, Pune (12th Jan)



Fire safety & Emergency preparedness training program - Zydus Hospital, Ahmedabad (17th Jan)



Certification & Training Program on Lean Management - Christian Medical College, Vellore (14th Jan)

TRAINING PROGRAMS

(JANUARY 2020 - MARCH 2020)



Certified Program in Quality & Accreditation (CPQA) For Students - AJ Hospital & Research Centre, Mangalore (17th -19th Jan)



Enhanced Clinical communication (ECC) Workshop - Sarvodaya Hospital, Faridabad (19th Jan)



Basic Nursing Communication Workshop - Sparsh Hospital, Bangalore (22nd Jan)

TRAINING PROGRAMS

(JANUARY 2020 - MARCH 2020)



Quality Tools & Techniques- KIMS,
Trivandrum (24thJan)



CPQIH Basic Training Program - Nirmals' Eye
Hospital, Chennai (24th -26th Jan)



CPHIC Basic Training Program - GNRC Hospital,
Dispur (31st Jan)



CPHIC Basic Training Program- Sankara Eye Hospital,
Jaipur (2nd Feb)



CPHIC Advance Training Program – GNRC Hospital, Dispur (1st -2nd Feb)

TRAINING PROGRAMS

(JANUARY 2020 - MARCH 2020)



Basic CPHIC Training Program - Sahyadri Super Speciality Hospital, Nashik (8th Feb)



Training Program on NABL Entry Level (TPNEL)
Dr. Mehta's Super Speciality Hospitals,
Chennai (15th Feb)



Advance CPHIC Training Program - Royal
Care Super Speciality Hospital,
Coimbatore (22nd - 23rd Feb)



Advance CPQIH Training Program- Hotel Elm, Panchkula (22nd- 25th Feb)

TRAINING PROGRAMS

(JANUARY 2020 - MARCH 2020)



Advance CPQIH Training Program- Hotel Elm, Panchkula (22nd - 25th Feb)



Training Program on NABL Entry Level (TPNEL) Hotel Abad Plaza, Kochi (29th Feb -1st Mar)



Clinical Audit Workshop - SVIMS Hospital, Tirupati (5th Mar)

TRAINING PROGRAMS

(JANUARY 2020 - MARCH 2020)



Basic Nursing Communication Workshop – Ganga Medical Center & Hospitals Pvt. Ltd, Coimbatore (14th March)



Basic CPHIC Training Program - Global Hospital, Chennai (15th Mar 2020)



Good Clinical Practices (GCP) Workshop - Sankara Eye Hospital, Chennai (15th Mar 2020)

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UPCOMING
ONLINE
PROGRAMS



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For Details & Registration:
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UPCOMING EVENTS

DIGITAL HEALTH ONLINE SUMMIT

25TH – 30TH MAY, 2020



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Dr. Vijay Agarwal
President, CAHO

Date: 30th May, Time: 3:30pm IST



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- The digital mindset transformation
- Patient staff engagement and culture change
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