



INDIAN MEDICAL ASSOCIATION

KERALA STATE BRANCH



Guidelines

prepared by

**IMA KSB Committee
for Surgical Procedures**

Introduction:

Covid-19 has spread its tentacles in all areas of life and the worst affected sector among these is healthcare. Therapeutic procedures of different specialties have come to a grinding halt due to various reasons and this has caused lot of inconveniences and problems to the patients as well as institutions. Due to this, non Covid patients are ignored on various reasons like lack of proper directives from authorities, safety concerns of patients, safety of healthcare personnel etc. This has caused increased morbidity of many patients and we have to seriously consider the safety of patients and healthcare personnel on restarting the procedures.

Based on this scenario, President of Indian Medical Association Kerala State has appointed a committee to study the various pros and cons of this issue with Dr. Joseph Mani as chairman and Dr. Alex Franklin S as Convener. Members of this committee are Dr. Sreekumar Vasudevan, Dr. Dominic Mathew Pallett and Dr. R C Sreekumar. Committee conducted virtual meetings with the members of the committee, leaders of IMA and also with leaders of Professional Associations namely, 1. Association of surgeons of India, 2. Kerala Orthopaedic Association, 3. Indian society of Anaesthesiology 4. Kerala Federation of Gynaecology and Obstetricians etc.

Committee is thankful to Dr. Abraham Varghese State President KSB, Dr. P.Gopi Kumar, State Secretary, Dr. A Marthanda Pillai, past National President & National Action Committee Chairman, Dr. T.N. Babu Ravindran, Past State President, KSB and Dr. A. V. Jayakrishnan, Past President KSB & Chairman HBI Kerala & NPPS Secretary for their continuous support and feedback in preparing this report. Committee is very proud to announce that we could finish our report within 5 days of appointing the committee after extensive deliberations.

The problems facing by institutions are:

1. Severe economic crisis which may lead to closing down of hospitals.
2. Unemployment of Doctors and Paramedics.
3. Lack of enough PPE and safety devices.
4. Infection risk of healthcare personnel.

Problems of the patients are:

1. Denial of treatment to non Covid patients.
2. Hike of cost of treatment.
3. Non availability of health care facilities and Doctors.
4. Developing further complications due to delayed treatment.

Covid is spreading at an alarming rate and a remedy for this malady at this stage seems to be difficult for the immediate period. Therefore it may be unwise to delay the treatment to the needy patient and hence the committee was asked to examine the requirements and draft a guideline to start the treatment procedures.

As health care providers, we should provide timely surgical care to patients coming with emergency and semi emergency and also surgical and gynaec conditions. It is also important that all healthcare establishments should restart their functioning for providing treatment facilities to non Covid patients. It is absolutely necessary that the institutions take/ provide appropriate

safety measures to patients and HCW on this pandemic situation.

Selection of Patients: - A separate fever clinic where all patients with fever/ respiratory symptoms/contact/travel history to be examined and screened. Advised to avoid air-conditioned rooms and desirable to keep windows open. Always use Non-contact thermometer to screen the patients. This is essential before routing them to Surgical OPD.

Please follow the statutory policies of respiratory triaging from OPD to surgical procedures: -

I. Surgical OPD guide lines:

1. Triaging and Screening - Patients are to be placed 1- 2 meters distance in a queue. Doctor and assisting staff are to wear- three layered medical masks, Gown (linen) with Apron and gloves.

Cleaning / Housekeeping staff –

Three layered medical mask, gloves (while shifting patients) and Heavy-duty gloves while cleaning is always ideal. Observation and Non touch technique for screening temperature is always encouraged, if available. Medical mask may be provided for suspected patients. Make a single-entry point to the hospital for screening of the patient and bystanders. The Doctors and staff manning this area to use N-95 masks and face shields, and spaced appointments may be given to avoid crowding in OPD.

After proper screening surgical cases are to be directed to surgical O.P. Department. Ensure strict physical distancing in the various areas especially waiting areas of the hospitals. The waiting areas may be placed outside with chairs at more than one metre distance between chairs.

2. Provide hand sanitizers at the entry point of hospital for hand washing (annexure 1). Ask the patient to cover nose and mouth using towel, cloth or mask before entering. A self-declaration form to be given to the patients and ask them to fill up and sign. (Sample attached as annexure -5).

3. Keep the patient seated at a distance of 1.5 metres apart in the OPD.

4. Avoid examining nose, mouth or throat except in areas which require mandatory examination. Use face shields in such cases.

5. Clean the seat and table with sodium hypochlorite solution (1%). Any material discarded by the patient also may be disinfected with hypochlorite solution.

6. As far as possible don't allow any accompanying persons inside OPDs without proper protective devices.

7. It is better to avoid the use of air-conditioners and to keep the windows open.

8. Use only non-contact thermometer.

9. Floors and furniture to be periodically cleaned by hypochlorite solution.

10. Periodic cleaning of mobile, Stethoscope, etc. with spirit.

11. All your hospital- dress, shoes, pen, and personal belongings etc. should be kept outside the residence before entering their home.

12. Never touch your nose, mouth, eyes & face during or after examining the patient. Doctor and staff managing this area have to use N95 masks and face shields.

2. HAND HYGIENE (HH): (Annexure -1)

Effective Hand washing / Hand hygiene is the most important measure during direct patient care. Choose either alcohol-based Hand rub (20-30 sec) or Hand wash with Soap & water (40-60 secs). Avoid touching possibly

contaminated areas / objects. Ensure availability of Alcoholic Hand rubs and Hand washing facilities (preferably elbow operated taps in clinical areas). Dispose the waste in appropriate BMW bins as per the policy. Infection control educative & Information posters should be displayed.

3. PERSONAL PROTECTIVE EQUIPMENT (PPE): (Annexure -3)

Wear a Triple layered Medical mask while handling patients- suspected / confirmed. N-95 respirator/FFP-2 mask including gloves, long-sleeved non-permeable gown, eye protection/ face shield – while collecting samples for COVID testing & performing aerosol generating procedures, such as - Tracheal intubation, Non-invasive ventilation (avoid if possible), Tracheotomy, Cardiopulmonary resuscitation, Manual ventilation before intubation, Bronchoscope etc. Medical masks can be worn for 4-6 hours and N-95 respirator for 6-8hrs ideally. Masks should be carefully handled and ideally discarded in yellow bin after use. Everyone who needs to wear N-95 respirator should be trained and fit test to be done at-least in once in a year. Wear PPE before patient contact and remove after coming out of patient care area. Do not touch your face while wearing a PPE. Wash hands before and after PPE wear.

4. O.T sterilization Procedure:

Floor Cleaning with 1% sodium Hypochlorite solution while all windows and Doors open and go for second line cleaning with Lysol / alcohol or any approved disinfectant after every procedure. All staffs should wear PPE units and Hoods. Anesthetist performing aerosol generating procedures should wear N-95 respirator, Face shield / goggles, water resistant gown, double gloves, Apron (optional), shoe cover and hood. All elective and emergency surgeries & invasive procedures – consider all as COVID positive and (X-ray chest /CT chest, CBC, LDH, AST/ALT) if well within normal, proceed with routine OT precautions and perform surgery. Only minimum required staff should be allowed inside OT.

If COVID positive (as per current guidelines, patient should be referred to government facility) and in an emergency where surgery can't be postponed – Stop Positive pressure & smoke extraction, intubation & extubation in isolation room (separate room) , with minimum staff. All should wear – N-95 respirator, face shield, coverall, Double / triple gloves, shoe cover, water resistant gloves.

High cleaning of the entire OT by Housekeeping staff wearing N-95 respirator, goggles, gown, heavy duty gloves, boots and hood.

The staff should wear N-95 respirator, gloves, long sleeved fluid repellent gown and goggle/ face shield.

5. ICU and Post-operative ward cleaning (Annexure-2)

Patients beds are spaced at one meter apart. Only essential staff should enter the critical care areas. Doctor and the assisting HCWs should wear three layered medical masks.

Cleaning / Housekeeping staff – N-95 respirator, goggles, gown, heavy duty gloves, boots and hood – Ideal.

Floor cleaned with 1% sodium hypochlorite or any approved disinfectant 3-4 times a day (6-8 hourly). Medical equipment –cleaned and disinfected after use and between patients with alcohol or manufacturer approved disinfectant. Clean High touch points once every 3-4 hours. Hand wash /

hand rub between patients and before and after PPE use.

Dispose the waste in appropriate BMW bins as per the policy. (Annexure- 3)

Stringent visitor policy: Only one bystander to be allowed and the same person to be continued throughout. Designated routes for transporting of materials. Sufficient supplies of PPE & hand wash / rub solutions.

Appropriate training to be imparted to staff and support personnel like security officers & cleaning staff, as and when required.

5. Isolation Ward- and post-operative ward: -Patients beds spaced 1 meter apart. Well-spaced & ventilated room with 10 beds in 2000sq ft preferably with separate entry and exit. If there is no AC facility, then equip with 3-4 exhaust fans. Minimize patient's belongings. Only essential staff should enter the room. Ensure that adequate resources for Hand hygiene & PPE, N-95 respirator used for aerosol generating procedures.

Staff pattern- At a time, only one third or the half of the staff should be deployed and they should work for 7 to 10 days depending upon the situations in the hospital. If any patient becomes Covid positive, the functioning of the hospital should go un affected.

Waste generated is collected separately in double yellow bag with a COVID-1 waste label on it. Keep duty roster of all staff working in isolation area for outbreak investigation & contact tracing. The Patient and the attendant maybe provided with a medical mask.

6. Modification of Procedures: - Avoid lap surgeries and prefer open surgery and the gap between the surgeries should be at least 1 hour. Drills and Trephines may be less used with adequate precautions.

7. Anesthesia – GA may be avoided as far as possible, prefer regional anesthesia. If intubation is a must, surgical team enter only after the intubation of the patient.

8. Use minimal time for surgery with optimum staff. For prolonged surgery multiple teams should be kept ready.

8. Chalk out surgery plan accordingly as Plan I and Plan II.

Plan I – assume all as COVID positive and take universal precautions.

Plan II – screen patients and plan according to the RT PCR test.

LINEN HANDLING: All used linen should be handled by HCWs with standard precautions. Used linen should be handled as little as possible with minimum agitation to prevent possible contamination and generation of aerosols in the areas. Soiled linen should be placed in clearly labeled, leak proof bags or containers, carefully removing any solid excrement and putting in covered bucket to dispose off in the toilet or latrine. Curtains/fabrics/quilts should be preferably washed by using the hot water cycle i.e; washed with detergent at 70°C for at least 25 minutes. Contaminated linen should be washed in 60-90 C water with detergent and soaked in 0.5% sodium hypochlorite for 20 -30 mins. Finally rinsed with clean water and allowed to dry in sunlight.

CLEANING OF NON- CLINICAL AREAS (Annexure-2)

General cleaning- Detergent and Water (1% Sodium Hypochlorite can be done) Scrub floors with water and detergent, Clean with plain water and allow to dry. 1% Sodium Hypochlorite mopping can be done.

IN PATIENT AREAS

Restrict visitors and bystanders. Open doors and windows while taking rounds.

Use hand sanitizers after seeing each patient. Ear mark isolation rooms and dedicated ICU for Suspected Covid patients.

STARTING ELECTIVE PROCEDURES

Covid situation in the country may prevail for another few more months. Hence the procedures cannot wait indefinitely. **START DOING ALL THE PROCEDURES INCLUDING ELECTIVES.** Only the numbers of cases have to be decreased with time gap between each procedure to undertake cleaning and disinfection. With adequate PPE, Routine theatre dress, 3-layer masks etc can be used for procedures in Non covid patients.

PRE-OPERATIVE / PROCEDURE SCREENING TEST FOR COVID

Although it is ideal to test all patients for Covid, it is impractical due to the following reasons. (i) Current guidelines by GOI does not permit Covid test for pre - operative screening. (ii) RT- PCR facility will be permitted only in NABL accredited labs by ICMR. (iii) PCR test is not very sensitive and hence a negative test report does not guarantee Covid free status.

HENCE PRE-OPERATIVE COVID SCREENING IS NOT ROUTINELY RECOMMENDED UNTIL THE GUIDELINES CHANGE

MODIFICATION OF PROCEDURES

Modification of procedures like laparoscopic to open, procedures which can avoid drilling etc, may be undertaken after taking proper consent and precautions.

ANAESTHESIA

Intubation is an aerosol generating procedure which carries more risk. Hence GA can be avoided as far as possible. Use N95 masks, Face shields, plastic covers etc for GA. (Annexure -3)

Nebulization also to be avoided.

Anaesthesia circuit should have HEPA filters in expiration limb.

ENGINEERING CONTROLS OF PATIENT CARE AREAS

Negative pressure rooms are ideal for caring Covid (patients / suspected cases.). An exhaust fan placed in a closed room will make it a negative pressure room. Operation theatres and patient care areas with centralized ACs will require some modifications to avoid re-circulating air and filter air outlet.

CONSENT.

Standard declaration form is needed- Annexure -6

Additional special consent (to be added) to the standard surgical consent form –Annexure- 5

Discharge Advice

1. Follow all general advices of Covid pandemic
2. Avoid visitors and unnecessary travel

General guidelines for the specialty clinics (Like for all clinics):

1. Maintaining strict hand washing at the entrance.
2. Preferably all appointments to be fixed prior.
3. Not to encourage ad hoc visits and non-emergency visits for Gynaecology consultations.
4. Physical distancing between patients and relatives during their waiting time in the hospital.
5. Masks to be encouraged at all times.
6. USG appointments and lab appointments to be coordinated with visiting doctor to avoid long waiting time in the hospital.

Use of OT scrubs directions -Annexure-2

It is generally advised that all persons working in and near OT, wear a scrub as soon as they come. But in order to reduce cross contamination while moving around, wear an OT gown (need not be sterile) over your scrubs especially when you go to OT canteen or other areas within the hospital.

Enough OT gowns have been made available in the area where the OT scrubs are being handed over. If you are a frequent traveler outside the OT, retain this gown till you leave at the end of the day. Please hand over these gowns back to the receiving area for cleaning while you leave.

Points to remember about surgical procedures esp. where grade 2 and 3
Precautions to be taken:

All these cases will be done in the presence of senior surgical staff.

The number of personnel in OT is to be limited eg. Two surgeons, two anaesthetists, two technicians, two nurses.

Aerosol generating procedures (Intubation/ tracheotomy/use of diathermy/airway suction) will be done with extra caution.

If possible, post only one case in OT in a day or at least 1 hour gap between cases for fumigation and thorough cleaning.

The nursing team and other allied health teams also formed beforehand.

There should be a meeting of entire team including the anesthesiology team before each procedure so that all activities inside the OT can be rehearsed.

The procedure shall be carried out without wastage of time from the time of induction to extubation in order to prevent exhaustion in the team wearing the PPE. Hence all members in the surgical team should be physically present before the start.

The circulating nurse and technician will have all instruments and consumables ready inside the OT beforehand. (This could be done before the patient comes in and hence without wearing the PPE). There should be a named staff outside OT to hand over necessary materials into the OT so that unnecessary external contamination is avoided.

Try to minimize taking in any paper sheets/films/ laptops etc into the OT.

The OT will be cleaned after the procedure as per for Cleaning guidelines and infection control practices developed on the basis of GOI and GOK and WHO guidelines. (Annexure-2)

Annexure – 1 Hand Washing



(Annexure-2) Guide line for cleaning



Annexure -3 Wearing of Masks and PPE units and its Removal



Sequence of wearing & removing PPE (Annexure -)


SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The use of PPE will only work based on the level of protection required with an identified and correct, degree of activity defined isolation precautions. The procedure for putting on and removing PPE should be followed for the specific type of PPE.

- 1. GOWN**
 - Pulls gown from front neck to lower, arms to mid of wrists, and straps around the back
 - Fastens on back of neck and wrist
- 2. MASK OR RESPIRATOR**
 - Secure ties or elastic bands at middle of head and neck
 - Fit flexible band to nose bridge
 - Fit snug to face and below chin
 - Fit check respirator
- 3. GOGGLES OR FACE SHIELD**
 - Place over face and eyes and adjust to fit
- 4. GLOVES**
 - Extended to cover wrist of isolation gown

USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Never touch eyes, nose or face
- Limit talking or coughing
- Change gloves when torn or heavily contaminated
- Perform hand hygiene





SEQUENCE FOR REMOVING PERSONAL PROTECTIVE EQUIPMENT (PPE)

Except for respiratory isolation PPE, all gowns and all isolation barrier respirators after leaving contact room and cleanup area.

- 1. GLOVES**
 - Grasp at wrist or unfastened
 - Grasp ends of glove with opposite gloved hand
 - Roll glove away from face
 - Hold bag of a removed glove inside remaining glove if used
 - Peel glove off over first glove
 - Discard gloves in waste container
- 2. GOGGLES OR FACE SHIELD**
 - Grasp at top edge or top strap to unfastened
 - Turn away from face and straight, reaching behind of head only
 - Place gloves inside roll
 - Roll it or roll into a ball by and discard
- 3. GOWN**
 - Grasp front part where are unfastened
 - Turn away from face
 - Roll away from neck and straight, reaching behind of head only
 - Place gloves inside roll
 - Roll it or roll into a ball by and discard
- 4. MASK OR RESPIRATOR**
 - Part of strap or elastic is unfastened
 - Turn away from face and straight, reaching behind of head only
 - Discard in waste container

PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE







Step 1
Wash your hands before putting on the mask.



Step 2
Select a suitable N95 mask that fits well.



Step 3
Hold the mask with a top and bottom edge and place it firmly over your nose, mouth and chin.




Step 4
Stretch and position the band high at the back of head. Stretch and position bottom band under the chin.



Step 5
Press the top edge along the upper edge gently against the bridge of your nose so that the mask fits snugly on your face.



Step 6
Partials will check by inhaling and exhaling. During exhalation, check for air leakage around face.



The diagram illustrates the correct sequence for removing a mask: 1. Grasp the top and bottom edges of the mask. 2. Lift the mask away from the face without touching the front. 3. Roll the mask away from the face and discard it in a waste container.

Bio Medical Waste Handling and Disposal



The illustration shows a person in blue scrubs and gloves disposing of waste. They are using a yellow bin for sharps, a red bin for biohazardous waste, and a white bin for general waste. The text 'BIOHAZARD' is visible on the red bin.



A photograph of a yellow biohazard bin with a black biohazard symbol and the text 'BIOHAZARD' and 'COVID-19 waste' on it.

Annexure - 4 - PPE Face shield and how wearing



Face Shield how wearing



Annexure -5

Additional Consent Format

I agedS/D/W of
.....a case of
undergoing under
anaesthesia on .../ .../2020 hereby declare that I am aware of the pandemic
COVID 19 and about its unpredictable spread and that I can contract this
disease in course of my treatment in the hospital which can complicate the
treatment of my current illness.

Patient signature Bystanders signature

Witness' signature Doctor's signature

Name of patient Name of Bystander

Name of Witness Name of Doctor

P l a c e :

Date &Time :

Annexure-6

ചീകീസുക്ക് വരുന്നവരുടെ സ്വയം പ്രഖ്യാപനം

രോഗിയുടെ പേര്	വയസ്സ്	
അഡ്രസ്സ്		
MRD NO		
> വിദേശ സന്ദർശനം നടത്തിയിട്ടുണ്ടോ ?	ഉണ്ട്	ഇല്ല
> വിദേശ സന്ദർശനം നടത്തിയാവരുമായി സമ്പർക്കം പുലർത്തിയിട്ടുണ്ടോ ?	ഉണ്ട്	ഇല്ല
> മറ്റു സംസ്ഥാനങ്ങളിൽ സന്ദർശനം നടത്തിയിട്ടുണ്ടോ ?	ഉണ്ട്	ഇല്ല
> കൊറോണ രോഗം ഉള്ളവരും, നിരീക്ഷണത്തിൽ കഴിയുന്നവരുമായി സമ്പർക്കം പുലർത്തിയിട്ടുണ്ടോ ?	ഉണ്ട്	ഇല്ല
> പനി, തൊണ്ട വേദന, ശ്വാസംമുട്ടൽ, മൂക്കൊലിപ്പ്, വയറിളക്കം എന്നീ രോഗങ്ങൾ ഉണ്ടോ ?	ഉണ്ട്	ഇല്ല
> മുകളിൽ പറഞ്ഞ രോഗങ്ങൾക്ക് മറ്റു ആശുപത്രി / ക്ലിനിക്ക് / ഡോക്ടർമാരിൽ നിന്നോ വൈദ്യ സഹായം എടുത്തിട്ടുണ്ടോ ?	ഉണ്ട്	ഇല്ല

വിവരം നൽകിയ വ്യക്തിയുടെ പേര്/അഡ്രസ്സ്/ഫോൺ നമ്പർ :

Committee Members:

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Dr. Alex Franklin.S (Convenor)

Dr. Sreekumar Vasudevan (Member)

Dr. Dominic Mathew Palette (Member)

Dr. R .C. Sreekumar (Member)

Dr. Abraham Varghese, State President, IMA KSB

Dr. P. Gopikumar, State Secretary, IMA KSB