

# Practice Management Guidelines in COVID-19 times

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## Introduction

The world is passing through an unprecedented crisis, and as a result of it the medical profession is facing its biggest and toughest challenge. The current Covid-19 pandemic has stretched our resources to the limits and shattered us with destruction of lives. Nobody has a clear idea when life will come back to normal—it will really be a new normal to which we all will need to adapt and adjust. But then life must go on - and we must be prepared to open our hospitals, clinics and do what we do best – we must treat patients. Though the decision of lockdown was taken at national level (where we were treating only emergent and urgent conditions), the path to reopening our organizations fully (where we will start elective and routine treatments) will possibly depend more on local stipulations.

## Basis

Ophthalmology is a branch of medicine where it is virtually impossible to examine and treat a patient without coming close, and this fact may have health implications for the treating ophthalmologist, staff and the patients too. At this point any patient seen by us could be infected with the novel-Coronavirus now named SARS-CoV-2, regardless of presenting complaints and other factors like contact history, geographical location etc. Some studies have revealed that patients were typically infectious for several days prior to onset of symptoms (2 to 12 days), while others have shown that the duration of viral shedding in test-positive cases extended upto 37 days. It has also been reported that the virus is viable for hours to days on certain fomites that we come in contact with regularly. In view of these asymptomatic and environmental modes of viral transmission, and the fact that there is still no definitive treatment or vaccine for the virus, heightened by the findings of virus in the tear secretion collected from the conjunctiva of some patients with follicular conjunctivitis-like red eye - it is possible that all ophthalmologists are at increased risk to catch this infection and thereby can probably transmit this further to their colleagues, patients, staff and families too.

## Rationale

Therefore, OSWB has compiled a set of Guidelines for its members in particular – suggestions and best practices on how we should manage our patients, staff and hospitals in order to stay safe and also ensure the safety of all others. These guidelines are based on current knowledge of Covid-19 and since the pandemic is relatively new and our knowledge is mostly based on limited information from reliable scientific and statutory authorities – these guidelines will be a dynamic document and liable to changes as per new information and studies that will be available. These are to be taken as non-binding recommendations at the most and doctors are advised to use their judgment and discretion while following them. Ophthalmologists are advised to keep on evolving and adapting with the changing restrictions and guidelines of the local authorities where they are practicing. As circumstances vary from hospital to hospital, the decision to start elective procedures and other major considerations will have to be taken by the ophthalmologist concerned and the hospital authorities when the time comes, keeping in mind the safety of all concerned. We shall continue to share our accumulated experience and collective wisdom – in order to protect our practices, our society and our families.

**N.B.** The word 'Hospital' will mean all registered healthcare organizations including but not limited to Clinic, Chamber, Nursing Home, Day Care Centre etc. The word 'He' wherever used will mean and include 'She'.

## GUIDELINES

### When to restart

1. The Health care facilities have been kept out of the purview of the lockdown, but we were asked to provide only emergency and urgent health care services. As elective procedures and routine checkups were stopped, most of the eye care facilities were nearly closed. Added to this was the logistical problem of staff attendance, supply chain disruption and patient reluctance, heightened by the real danger of transmission of the viral infection. Therefore, most of our clinical practice has almost come to a halt.
2. But some institutions may have been ordered to shut down by the local authorities – either due to stringent containment measures or mainly due to incidence of positive COVID-19 incidences in that hospital.
3. With passage of time there is some clarity on the matter of our restarting post lockdown. All our clinical settings will most likely be able to start their practices unless there is any other specific order by the local authorities. But the challenge will be to overcome the genuine logistical issues initially and to strictly enforce the safety measures to prevent any spread of the viral transmission in the long run.
4. Remember that it will not be 'Business as usual' even after lockdown is over - at least for some time now. The decision to restart your OPD should depend upon the date when you are ready to screen all visitors who are coming to your facility. Every hospital should have its protocols in place and working too, depending upon many ground realities like location, size, capacity, attendance, resources etc. The availability of Protection gear and its usage is another vital component. Most importantly one has to plan and make strategic provisions possibly for the long haul.

### How to restart

1. Once the basic infrastructure has been organized and put into operation, the hospitals may start accepting all patients with the safety measures and protocols (as illustrated for reference in the following document) in place.
2. The important thing to remember is that the chance of viral transmission will remain for a long time. So we should strictly understand, propagate and adhere to the concepts of social-distancing, physical-distancing, avoid-crowding, staggered-appointments, one-patient-one-attendant, compulsory-mask-for-all, entry-thermal-screening, TOCC-reporting, self-reporting-of-symptoms, staff-optimization, triage-policy, PPE-usage, urgent-non-urgent-patient, tele-consultation, electronic-records, digital-payments, infection-prevention-and-control, minimum-exposure-time, hand-sanitization, COVID-19-suspect,rapid-isolation, COVID-19-referral, tracking-disinfection, contact-tracing, quarantine, COVID-19-testing etc.
3. The decision to take up non-urgent and routine cases will be dependent upon the work load of the hospital to some extent and also the risk of avoidable exposure to both the

patient and hospital staff. It may be a good idea to try and test the new protocols started in hospitals for few weeks before accepting elective cases.

4. The ophthalmologist and hospital authorities should work out a clear strategy both for the next few months and also the foreseeable future. It may be advisable to involve some key stakeholders for successful implementation of the changes. Even the financial aspects will need to be worked out in a balanced manner.

### At Entry

1. Patients should enter the hospital gate one by one. Only 'one attendant for one patient' policy should be followed with the possible exception in cases of very old and infirm patients (e.g. wheel-chair bound patients) and infants (if patient). A queue system like those in airports may be arranged for space management.
2. Non-contact thermal screening should be done for everyone (including patient, attendant, doctors, staff, visitors) by a trained guard/staff at the main entrance. Those who fail the Thermal scanner test should be denied access and referred to the 'Fever clinic' in a designated hospital, government or other, for COVID-19 testing and treatment where necessary. If the patient has an emergency eye condition, then he should be referred to a facility having Eye Department which is equipped for such patients who are suspected or positive for COVID-19. Any such patient with an emergency condition should be given advice for first-aid if necessary and then referred to the designated facility along with the necessary prescription.
3. There should be a pre-entry screening desk where all visitors including patients, attendants, staff, doctors etc. should be screened based on history and symptoms regarding Covid-19:
  - History of –**TOCC**: *Travel* in the last 14 days (international/other state), *Occupation* (whether Health care worker), *Contact* (whether any contact with Coronavirus positive person), *Cluster* (whether belonging to a cluster area as in hotspot zone).
  - Symptoms of – raised Temperature, Cough, Breathlessness, Red eye etc.
4. A register should be maintained at the screening desk to enter patient and attendant data (Name, Age, Contact No., Address, ID) in case it's required for contact tracing at a later date. All visitors and staff may be requested to download the 'Aarogya Setu' app as asked by the Government and any relevant information noted. All this can be done when the patient is in queue while maintaining social distancing. Confirmation of the patient's (and attendant's) contact number should be done immediately once it is noted down.
5. COVID-19 special consent should be explained and signed by the patient and attendant at the entry acknowledging that Corona-virus transmission can occur from patient (and attendant) to hospital staff and vice versa (Format suggested by AIOS). It should also mention that their COVID-19 status will be shared with Health and other concerned statutory authorities. A special consent regarding working in COVID-19 situation may also be signed by all staff working in the hospital.

6. Hand sanitizer containing 70 %iso-propyl alcohol should be provided to every patient & visitor at entrance by the staff and hands sanitized before allowing patient / visitor to enter in the hospital premises. Wash basin maybe installed after entry gate for soap and water hand-washing of all patients, attendants and staff. Dustbins with cover should also be provided for throwing used tissue etc.
7. Wearing of masks in public areas (as per Government advisory) or face-covering cloth should be made mandatory for all entering the hospital premises. If the patient or attendant is not compliant, the hospital should make provision for providing mask at that point.
8. Etiquettes like coughing properly and no spitting in the hospital should be explained to the patients and visitors clearly by posters/boards etc. Posters of social distancing and no-touch policies should also be displayed.
9. Preferably no footwear or baggage etc. should be allowed inside the consulting rooms.
10. Hospitals should have contact numbers of local Police and administration including Health authorities in case of necessity to enforce adherence to new protocols and procedural changes and possibly also for reporting any positive cases of COVID-19 or suspects etc. to the concerned authorities.

### In Waiting

1. Entry to the premises should be properly manned. Staff should use masks and protective gear.
2. There should be no crowding and 'Social Distancing' norms should be followed. A distance of at least 1 meter between visitors should be maintained.
3. There should be plastic shield barriers / rope barriers in front of counters at reception, cash, pharmacy and spectacle shop to maintain distance and check infection by aerosol spread.
4. All reception staff should wear a mask and also a face shield to prevent infection by aerosol contamination. Use of gloves should be encouraged along with hand sanitizers. An experienced staff (doctor or optometrist) should be available for Triage of the patients' conditions at the reception.
5. All doors and windows in OPD waiting areas should ideally be kept open as far as possible. This 'open doors policy' is important to facilitate ventilation and discourage patients from touching the doorknobs and handles.
6. Consultation should be allowed only by appointments as far as practicable. Appointment timings should be staggered so that there is minimum waiting at the hospital premises. Even if walk-ins are allowed, they should be called inside either singly or in small

batches. Patients can wait outside / in vehicle and they may be telephoned at the right time to enter if waiting area is not big enough. In any case social distancing should be maintained.

7. Patients should be encouraged to use digital payment methods. Cash accepted should be handled using gloves and hand sanitization. Remote confirmatory check-in with digital payments may be encouraged.
8. Disposable glasses should be provided for drinking water and ensure their proper disposal. Proper sanitization of the dispenser should be done at regular intervals.
9. Hand sanitizer should be available for the patients to use within the hospital.
10. No magazines or newspapers should be kept in the waiting area or OPD because they act as fomites.
11. Lifts should be used by the patients only as far as practicable. Crowding has to be avoided and ideally the lift doors should be kept open for some time in between.
12. Hospital door knobs, staircase rails, lift buttons, seats etc. should be sanitized at regular intervals.
13. Patients complaining of red eye or frank conjunctivitis should be immediately isolated at the reception and sequestered in a special room designated as a "Isolation room" and not allowed to mingle with other OPD patients. The "Isolation room" should ideally be away from main OPD / OT complex. These patients must be treated as COVID-19 suspects and they should be examined after donning a PPE.
14. Patients should be advised not to bring out old paper records as much as possible. They should be encouraged to show digital copies of records by digital transfer on mobile etc. Maintenance of Electronic records by the hospitals should be encouraged.

### **For Appointment**

1. It is preferable that patients should come with prior appointments so that they can be properly triaged and thus crowding can be avoided.
2. Tele-consultations (maintaining the norms of Telemedicine Guidelines by Government) can be done for some patients like follow up cases who as per the doctor can postpone in-person consultation for some time to avoid overcrowding.
3. Appointments should be properly spaced out so that there is no crowding at a time.
4. Number of walk-in patients should be limited to a manageable number in order to avoid crowding.
5. Patient's short history pertaining to TOCC and complaints of fever, cough, and COVID-19 status should be noted down while booking telephonic appointment.

6. Information should be given over the phone that only one attendant per patient is permitted in the hospital. That they will have to undergo certain mandatory procedures in the light of COVID-19 should also be mentioned. Policy of compulsory-masks, thermal-failure and red-eye should be informed beforehand. It should be informed that they will not be able to avail usual services if they fail the COVID-19 screening at the reception.

### During Consultation

1. One at a time entry into doctors' or optometrists' chamber should be maintained. The caregivers should also be wearing a cap, mask (ideally N95 or equivalent if available), face-shield (or at least transparent goggles), gloves and hospital dress.
2. Open windows and doors as far as practical with fans for air flow / ventilation should be maintained. The table fan's flow of air should be directed away from the caregiver.
3. While examining, conversation should be minimum and a quick turnover should be encouraged. Minimum exposure policy should be maintained as far as possible. Ideally not more than 10 to 15 minutes exposure with a patient where both sides are using masks compulsorily should minimize the transmission risk.
4. While examining an infant or child, there is aerosol generation whenever the child cries and most likely they will not be using masks. So their examinations should be done wearing N95 masks with face shield and protective gear while maintaining other precautions.
5. Touching of patient or their papers etc. by staff or doctor should be minimized. New prescription paper should be used. If required, patients can show relevant records by sending digitally or by holding them up.
6. Instillation of eye drops should be done ideally by the patient or attendant using one's own bottle or the staff should use no-touch technique with utmost care. It is better to use patient's personal bottle of eye drops if possible. If non-urgent then patient can possibly be called on next day after application of dilating drops at home so that the waiting period in hospital is not so long.
7. Counseling of patients should be done expertly in minimum time. Experienced staff should do it with minimum conversation and also rely on digital information to be shared with the patient and attendant.
8. Routine non-urgent refraction should be deferred initially. If refraction is done, then the trial frame must be cleaned immediately after each use with 70 % alcohol wipe and hand sanitization done for every case. The used trial lenses should also be wiped with the said iso-propyl alcohol wipe.
9. Slit lamp should have a plastic or acrylic barrier or breath shield. While masks for both patient and doctor should be compulsory, it is best to limit conversation or any aerosol

generating procedures. The breath shield should be cleaned frequently with 70% isopropyl alcohol or Bacillol-25 spray.

10. Chin rest, forehead rest, plastic protector shield, seat, door handles and knobs etc. should be cleaned immediately after the patient is examined with a swab soaked in 70% isopropyl alcohol or specified sprays.
11. Patients with red eye or frank conjunctivitis or COVID-19 suspects should only be examined in the segregated "Isolation room" after donning PPE by doctor and staff. The names of staff and other persons coming in contact with these cases (and any other COVID-19 suspect) should be listed in a special register for later use if required.
12. Washing of hands with soap and water after each examination or use of alcohol based sanitizer should be routinely followed.
13. Mopping of floors with 1% sodium hypochlorite should be done at an interval of every 3 to 4 hours besides at the beginning and end of OPD.

#### For Diagnostic Procedures

1. Any procedure that generates aerosol or brings the caregiver in contact with patient's tears like NCT (aerosol by air puff), tonometry, gonioscopy, 3-mirror examination and particularly nasolacrimal duct syringing should be avoided as far as possible. Syringing should not be done if possible without taking maximum precautions in "Isolation room".
2. Fundus exam with 90-D etc. may be done with due precautions.
3. All diagnostic lenses [20-D, 90-D, goniolens etc.] and therapeutic lenses [Abraham, YAG, Mainster etc.] should be properly washed with soap and water soon after use. Before using on a patient they should be disinfected with iso-propyl alcohol wipe.
4. Direct ophthalmoscopy should be avoided and indirect ophthalmoscopy preferred. Fundus photo, OCT and Retinal laser and YAG laser may be done with due precautions. Masks on both sides and minimum exposure time policy should be maintained.
5. In cases where tonometry has to be done, Goldman applanation tonometer or I-care tonometry should be done. In case of former the prism must to be cleaned immediately after each use with 70%isopropyl alcohol. I-care tonometer tips are disposable and are not to be re-used.
6. If Perimetry and OCT are to be performed, then they should be done with the patient wearing aN95 mask. This will possibly prevent the cupola being infected. Before and after each examination, the outer casing, response button, chin rest and occluder must be disinfected with iso-propyl alcohol wipe. It is not advisable to clean the inside of the cupola with any solution.
7. Contact probes for A & B scan should be disinfected with iso-propyl alcohol wipe before and after each use. ERG and EOG are best avoided if possible.

8. All investigations for the patient should be done in one visit if possible. Cross-referrals should be done only if it is vital according to the doctor.
9. Contact lens trials should be done only using gloves, N95 mask and face shield by the caregiver. Disposable lenses should be used. Lens containers should be disinfected properly after each use.
10. Optical frame trial should be done only after cleaning of every frame with 70% iso-propyl alcohol or Bacillol-25 spray wipe immediately before and after being used by the patient who should be using mask. Use of hands by the patient should be discouraged. The staff should use gloves and mask. Proper hand sanitization measures should be followed for every patient.

### **Regarding Personal Protection**

1. Once in the hospital building, all hospital staff and doctors should change from street clothes and wear hospital dress / gear. Staff should maintain social distancing even when they are travelling to and from the hospital. Big hospitals may consider providing transport facilities if feasible.
2. Staff should wash face, hands, forearms with soap after stepping into the building. Thereafter they should not touch their face, mouth, nose and eyes. The hair should either be short or pulled up and ideally covered fully by a cap. Beard should ideally be trimmed for a better fit of the mask on face.
3. All staff should wear a mask, cap, gloves (where required) and apron. Full sleeves are ideally avoided. Aprons and hospital dress should be washed with soap and hot water daily.
4. Every staff member should keep appropriate physical distance from patients and other staff. Lunch or coffee breaks should be staggered so that there is no crowding or break in OPD work time possibly.
5. Staff should touch the patients only if it is essential.
6. Biometric thumb attendance of staff should be suspended temporarily.
7. Triage staff at reception should wear cap, mask, gloves, face shield / eye protection, apron.
8. Hand wash with soap and water with use of sanitizer should be done after examining every patient and at regular intervals.
9. Staff working in the hospital should avoid carrying anything other than the bare minimum necessities like spectacles, mobile, ID, money purse, keys etc. They should avoid using bangles, rings, watch, bracelets etc.

10. Proper usage, storage and re-use of N95 masks should be permitted provided strict guidelines for reuse (such as issued by AIIMS) are followed. Usage of PPE should be in conformity with standard practices prevalent (keeping in mind the supply shortages and their requirement in frontline areas of work).
11. All patients with red eye must be examined after wearing PPE as per infection control guidelines. Immediately after examination the PPE should be discarded appropriately. Donning and Doffing of PPE should be done following protocols. These patients must be examined in the "Isolation room" and should be immediately referred to the Government facility designated for COVID-19 testing after noting down their name, contact number and address. Their information should also be shared with the Administration & Health authorities.
12. Health care facilities should ideally have a "Hospital Infection Control Committee" to guide them regarding infection prevention and control measures. They should train all staff in measures needed to contain the virus transmission.
13. All staff must discard the disposables in proper bins and should leave the worn apron / hospital dressing hospital for washing daily with soap and hot water.
14. All staff on reaching home should leave their personal accessories in a tray to be sanitized first. They should have a full head bath with soap and water and wash the worn clothes in hot water with soap. Spectacles should be washed with soap and water where possible. Shoes should be best left outside.
15. All staff should be well aware of the scenario and should be trained to work in the present situation. They should be vigilant and on the lookout for symptoms and signs of COVID-19. They should self-monitor and report any symptoms of Covid-19 or history of TOCC both for themselves and family members / room-mates. In any case all staff on entry should undergo thermal screening daily.
16. If there is a case of COVID-19 positive patient treated, then the concerned hospital staff should be quarantined, tested as per protocol and may be started on Hydroxychloroquine prophylaxis (as suggested by ICMR and Government guidelines) if no contraindications.
17. The duty roster of staff in big hospitals should be made in such a manner that not all staff have to work daily. Staff allocation should be optimized in such a manner that staff from one shift/ one day should not meet one another or stay together in these times. Rationale is that if someone tests positive for Covid-19 then the whole staff does not possibly need to be quarantined because they had no chance to meet each other. In big settings one batch can work for 2 weeks and then stay at home for the next 2 weeks when yet another batch can start working in a similar fashion. A few staff may be kept on stand-by to replace someone who may need to be quarantined.

### For Surgical Procedures

1. Only a limited number of cataract / other surgeries should be performed every day once the elective surgeries are allowed to restart after lockdown period.
2. Only the patient should be permitted into the OT complex.
3. Only one attendant per surgery patient should be allowed into the hospital. Attendant must preferably wait outside building after completing the IPD formalities and should be called on phone to collect the patient once surgery is over.
4. Patient & attendant should be wearing masks in the IPD section. Patient should change to a fresh mask before entering the OT.
5. Patient should ideally keep mask on while being operated. Disposable Oxygen mask may be used if essential and the accessories will need to be disposed properly in that case. Usage of pulse oximeter should be encouraged with proper disinfection protocols between cases.
6. Street clothes of patients should be changed as usual into full gowns, cap, foot covers etc.
7. Attending Anaesthetist / Physician should wear their usual cap, gloves, gown and mask.
8. COVID-19 specific high risk consent at the time of surgery should be taken beforehand.
9. Pre-operative battery of tests should include chest x-ray (and SARS-CoV2 testing if and when allowed by Government). Clearance from attending physician or medical specialist should ideally be taken regarding absence of COVID-19 symptoms or signs. These measures should be followed especially in strict containment zones (and patients coming from those hotspot red zones). No patient with positive history of TOCC or symptoms of fever, cough, respiratory illness in last 2 to 3 weeks should be taken up for surgery unless adequate negative COVID-19 test is reported by Government authorities. COVID-19 positive cases should not be taken up for surgery (if emergency then refer to designated facility earmarked for handling such COVID-19 positive cases) in any case before at least 6 weeks have elapsed after the required test. They should possibly undergo testing again.
10. If and when Government guidelines allow, then all patients should be treated as COVID-19 suspects unless they have been tested otherwise. In that situation, all patients should undergo a rRT-PCR test to know whether they are COVID-19 positive or not. Till that time clinical and symptomatic vigilance along with epidemiologic tracking will have to be depended upon.
11. All patients should be draped with a plastic drape only because these act as an aerosol barrier and are disposable. But these should be carefully handled because the inner surface is in close contact with the patient's nose and face.

12. Surgeon and his assistants should wear N95 masks preferably.
13. Conversation in the OT should be extremely limited.
14. Gloves should be changed by surgical team after each surgery.
15. Gowns should be changed in between surgery when they come in contact with body fluids / blood or if aerosol generating procedures have been performed.
16. Topical anesthesia should be preferred over injectable or local anesthesia. Procedures should be completed safely and within the minimum time. Experienced surgeons may be given preference in the initial period.
17. General anesthesia should be avoided unless mandatory.
18. Fresh instrument set should be used for each case.
19. The OT should have the minimum required number of equipment and other instruments at one time inside. The number of personnel inside OT should also be minimum.
20. Freshly autoclaved phacoemulsifier hand piece should be used for each case.
21. For PPV the cutter, light pipe and infusion cannula should be used fresh for each case.
22. Patients should be discharged as soon as possible after surgery, to be seen usually next day. They may be given the list of usual post-op medicines at the time of booking OT.
23. In routine cases PPE donning should not be necessary. Usual surgical attire with double gloves and N95 mask should be used by the surgical team.
24. PPE should be donned for surgical procedures including but not limited to DCR, Dacryocystectomy and Orbital tumors (where blood is spilled) or when operating on a COVID-19 positive or suspect case. In case of documented COVID-19 case or suspect case, the hospital should ideally refer the patient to the Government facility or hospital designated for such treatment and having Ophthalmology department.
25. If using HVAC air circulation system in the OT which provides positive air pressure, then it should be switched off during the procedure and should remain switched off for 15 to 20 minutes after surgery is over to prevent spread of viral particles and aerosols. Positive pressure systems are not ideally recommended for ventilation and circulation issues. They may only be used in the presence of active HEPA filters and higher rate of air exchanges.
26. Ideally two patients should not be handled simultaneously in the same OT. There should be a time gap of at least 20 minutes between two cases. The time gap allows the air exchange to happen a few times.

27. When aerosol generating procedures like intubation, extubation, bag masking, electrocautery is undertaken by the anesthetist / surgeon, all should be wearing PPE.
28. Fogging of OT should be done on a daily basis, including patient sitting area preferably. While the main OT suite may be fogged with Microgen (D-125)/ Bacillocid, mopping of floors and cleaning of walls should be done with 1% Hypochlorite solution.

### For Cleaning

1. OPD floor and walls should be ideally mopped at 2 to 4 hourly intervals daily with 1% hypochlorite solution.
2. Hypochlorite spraying or aerosol fogging should be done in the environment after OPD closing time.
3. Hospital furniture especially in waiting area should be disinfected after OPD closes for the day.
4. Furniture like plastic chairs help maintain social distancing between patients and they should be washed daily with soap and water.
5. Electronic items like mobiles, computers, keyboard and mouse should be swabbed with alcohol at 2 hourly intervals.
6. Between cases, cleaning of OT table, mattress and surgeon chair etc. should be accomplished with a lint-free cloth soaked in disinfectant solution (1 % Sodium hypochlorite or Lyzol or sprayed with Bacillol 25).
7. Terminal cleaning of the OT: (a) Floor and walls to be cleaned with 1 % Sodium hypochlorite or Lyzol and (b) All table tops and surfaces, microscope head and phaco console to be cleaned with lint-free cloth soaked in Bacillol 25, and (c) OT air to be fumigated with high density fogger using either Microgen [D-125], Bacillocid or Ecoshield.
8. Air-conditioner machine filters should be regularly cleaned and disinfected. Autoclave machines should also be cleaned and tested for sterility before using after lockdown. Microbiology culture testing for OT may be done additionally.
9. Instrument sets should be cleaned daily after the OT is done. Instrument cleaning staff member should wear gloves, mask (preferably N95) and face shield. He should first soak instruments in hot water mixed with detergent and then perform routine cleaning.
10. Linens must be washed every day with soap and hot water.
11. Linen from COVID-19 cases or suspects should be discarded in a special bin containing bleach. Disposable PPE should be used in these cases.

12. Biomedical waste collection should follow routine segregation in appropriate color coded bins, each of which has bleach in it so that waste is soaked in hypochlorite solution.

### Regarding Investment

1. Hospitals should invest in an EMR software to eliminate the need for physical records and should also avoid cash handling. There are many other benefits of using EMR software.
2. Hospitals should invest in providing a tele-medicine consultation platform in order to eliminate the need for frequent non-urgent patient visits especially follow-up cases and thereby avoiding crowding at the hospital.
3. Patient education along with staff training in personal and ocular hygiene should go hand in hand with treatment facilities. Staff should be trained to screen the symptoms of COVID-19 both at hospital and home. They should be familiar with the concept of TOCC history.
4. There should be no immediate investment in costly equipment unless it is meant for urgent replacement purpose.
5. Increased Indemnity insurance should be taken and it must be ensured that coverage against infections like COVID-19 cases are allowed in the policy document specifically.

### About Finance

1. Rentals: The hospital may enter into discussion with landlords for ease of rent payment terms, decreasing or deferment of a portion of the rental possibly. The "Force Majeure" clause in the Rental / Lease Agreements need to be visited at this point of time. The hospital can offer to vacate a portion of the rented space if it is unused or less used.
2. Salaries: The hospital authority can take the doctors and staff into confidence while discussing possible strategies to stay afloat and overcome the current crisis. An across the board salary-cut or graded percentage reduction or voluntary pay-cut or deferred payment are some of the options available. Promotions, increments and bonuses are possibly the first options to be done away with this year in the current cash flow crisis.
3. Consumables: The stocks of consumables with the hospital need to be rationalized in order to unlock funds in view of the lower consumptions expected now.
4. Receipts and Payments: The Accounts department needs to step up its act by collecting all the receivables from the market particularly the payments from TPAs, Government agencies etc. Likewise, any dues to vendors will also need to be cleared keeping in mind that some stocks may need to be returned.

5. Banking: The EMIs of any Bank loan need to be either paid or the moratorium (as declared by Government) claimed. It has to be remembered here that even if you avail moratorium on EMI for 3 months, the interest on loan keeps on adding during this time and you end up paying more in the end. If necessary, the Hospital can avail of the Credit line extended by the Bank.
6. Overheads: The Fixed and Variable expenses need to be revisited so that the overheads are kept in check. Money saved at this juncture is as they say, equivalent to money earned. Budgeting will have to be re-done.
7. CAMCs: The Annual Maintenance Contracts for most of the costly equipment need to be checked. Hospital can enter into discussion with the companies to give extension of warranty and contract period wherever feasible. The bundling feature of lease hire contract also needs tweaking now in view of the expected lower turnover.
8. Insurance: The hospital can get increased cover for indemnity insurance and it should check the policy wording so that the clause of infection coverage particularly due to COVID-19 is in place. Term life insurance and Health insurance cover for staff and doctors in these times can be an incentive for the hard work of all the hospital staff.
9. Increased costs: Due to new protocols in place, increased consumption of preventive items, additional working hours, need for more logistical infrastructure— there is bound to be an increase in expenditure of the hospital. The decision to charge the patient more will have to be taken at some point of time, probably sooner than later.

### Other considerations

1. Camps: Since the camps mean increased number of patients at one go which help in capacity utilization of the hospital, it is possibly not the ideal time (at least not initially) to hold these camps. Innovative ways to tackle the patient load if at all, will have to be devised keeping in mind the statutory and societal norms.
2. Medical representatives: In order to prevent crowding at hospitals, the Medical Representatives should be advised to send information digitally. They may take special appointments at the discretion of the doctor. The companies may help in disseminating health education in the community digitally. They may also contribute to the system by distributing the much-needed Protection gear along with recommended protocols to use them.
3. CMEs: As CMEs are vital resources to keep abreast in our profession, they can be held in the form of Webinars. To allow more participation, the recordings should be made available on the internet with links sent to all those interested.

4. Conferences: As long as there is restriction on holding bigger gatherings like our scientific meetings, there is really no chance of organizing any Conference as we know them. Moreover, even after restrictions are lifted, there is a feeling that the travel behavior of people will remain changed until there is the Vaccine and immunity in place. Till then there is an option of holding Virtual conferences which will help doctors to come together. We will need to be thoughtful and careful while making these important decisions in future.

### Important

1. Quarantine: Since there is no proven treatment or vaccine for COVID-19 as of now, the chances of contracting the infection or coming in contact with someone infected remains real. In that case, quarantine measures for a minimum of 2 weeks are compulsory for the staff in addition to advice of the Health authorities.
2. Serological Testing: With the advent of rapid-testing Kit the norms of testing for COVID-19 may necessitate more testing, including at Health facilities. The staff and doctors may need to test voluntarily in the coming days. Their accuracy of course remains to be confirmed beyond doubt.
3. Lockdown: In case of positive testing of any staff / patient in the hospital, the authorities may have to lockdown the concerned department or the entire health facility for some time. This is a real concern for all. It should be done following the Health authorities guidelines. Disinfection procedures and contact tracing measures will need to be followed as per protocol.
4. Family: Remember to keep your family members safe and in order to be able to do that daily you will have to strictly follow personal protection guidelines day after day. You will need to enforce your guidelines at your practice setting for all to follow. It is better to err on the stricter side to be safe and healthy.

### Disclaimer

There is no financial interest involved while using any trade name or brand. The doctors are free to exercise their choice and advised to choose and follow the tried and tested items as per their experience and discretion.

### References

1. AIOS Guidelines
2. AIIMS Guidelines
3. MOHFW Guidelines
4. AAO Guidelines
5. IJO Guidelines

## Discussion relevant for different types of practice

### Single Practitioner Clinic

1. Many of our members fall in this category and are greatly impacted by the lockdown measures enforced. It is for them that these recommendations (OSWB Practice Management Guidelines) should come in most handy.
2. Any healthcare setting in practice will need to implement these suggestions after improvising them as per the ground realities of the situation at their location.
3. Since here the ophthalmologist is in control and there is usually no IPD, it should be easy and enough for them to put in place the general recommendations and those for the OPD.
4. But lack of infrastructural logistics and scarcity of manpower will be the main challenges.
5. The doctor may even need to invest money in getting some protocols in place, but it will be for the permanent good of the practice.
6. Having no real back-up, it is imperative that no chance be taken in identifying COVID-19 suspects or positive cases and the safeguards of social distancing, no crowding, staggered appointments, short waiting etc. should be maintained.
7. It may be a good idea to take the help of some retired well-wisher or recruit temporary staff if needed for the initial phase of getting the changes working.

### Polyclinic/Optical chamber

1. In these settings where there is no IPD, the guidelines (OSWB Practice Management Guidelines) will only be general and for the OPD clinic.
2. It should not be difficult to get the general protocol started if the owner is willing though it may take some time and much-needed guidance also. Staff numbers are generally low in these settings and usually are trained differently than the average health care facility.
3. Usually these settings are not very big and so it may be difficult to maintain the concepts of social distancing, no crowding, minimum waiting, all appointments etc.
4. If there are many practitioners consulting at the same time in a polyclinic setting, then it will be all the more difficult to maintain these safeguards.
5. In an optical chamber, it will again be a challenge as most of the patients take a longer time to choose an optical frame and order it (which is usually the main interest of the owner). Disinfection has to be done after every such patient.
6. Most importantly, all the stakeholders need to be on the same page as far as understanding and implementing the guideline recommendations is concerned.

### General Nursing Home setting

1. The Nursing Homes which are relatively bigger and popular with a responsible administration can be expected to put in place the suggested protocols (OSWB Practice Management Guidelines) in good time.
2. Usually being multi-specialty in character, they may not fully understand the unique challenges of an ophthalmic practice at once. It will take the ophthalmologist some time to get all the ophthalmology-specific routine in place.
3. The main issue will be to train the staff as per the needs of our cases, and maintaining the strict protocols among all practitioners from different branches.
4. If the Eye OT is not segregated, then it will be a still bigger challenge because of the greater risks from aerosol generating procedures like GA etc. Disinfection protocols need to be running strictly.
5. The increased costs of the new protocols, if not absorbed by the management, will be passed on to the ophthalmologist.
6. Heightened vigilance by the doctor will be needed because of the increased chance of COVID-19 suspect being present / treated in the multi-specialty facility.

### Small Eye OT setting

1. Most of these settings do not normally have the wherewithal to adopt all the recommendations (OSWB Practice Management Guidelines) even if they want to. Manpower crunch and infrastructure limitations are the main hindrances which will be difficult to overcome in the immediate future.
2. Since the management is in the hands of a single practitioner or person, the decisions can be implemented as far as practicable, if the funding is there.
3. As all the guidelines cannot be practically implemented fully, these settings will need to sit down and devise a working strategy safeguarding the interests of all concerned.
4. It may be difficult to restart quickly with all necessary protocols in place, but it is advisable that they tailor-make their own safety-net while borrowing heavily from all the guidelines and improvising on them.
5. They should not take any chances with COVID-19 suspects or positive cases because they do not have any reserve staff strength usually.
6. In some situations, it may be easier for them to restart elective cases maintaining the recommendations because their work load is never as big as that in hospital settings.
7. But in any case they have to factor-in the definite higher expenses and the expected lower revenues in the near future.

### **NGO Hospital setting**

1. Many of these hospitals usually have non-ophthalmologists and part-time volunteers from other businesses as their main administrators (Board members). So it may take some time to establish all the suggested protocols (OSWB Practice Management Guidelines) correctly under usual circumstances.
2. As these settings usually have limited resources - particularly staff and doctors, it may be difficult to train them and optimize their allocation as per the recommendations.
3. More importantly many of these hospitals are known to rely on camp-based surgeries where a bus-load of patients are admitted and operated in one day at the facility. This methodology should be revisited and some safe strategy needs to be devised if there is still demand of surgeries in large numbers.
4. In any case the norms of social distancing and not crowding along with staggered appointments and minimum gap of 20 minutes between cases taken up singly in each OT will need to be followed to prevent transmission of COVID-19 infection in the staff and patients of these NGO-run hospitals and the community at large.
5. There will be a reasonable chance of these hospitals turning into COVID-19 transmission grounds if business is carried out as usual immediately after the lockdown is over. They will need to have all protocols up and running first.
6. These hospitals may need to increase their charges from the beneficiaries and / or depend more heavily on their donors to support them in the future.

### **Group Eye Practice setting**

1. The ophthalmologists in the group practice should come together and formulate their own protocols to be followed on the basis of these recommendations (OSWB Practice Management Guidelines).
2. Most of the guidelines can be followed by these hospitals since it is likely that they have good resources to fall back upon.
3. It may be a challenge to accommodate all the patients of all the doctors who consult at the same time in a relatively small place.
4. Disinfection protocols need to be followed to the hilt. Entry screening will also need to be coordinated as a single working protocol.
5. Staggering of OT patients in such a setting may be a big issue when there are many busy surgeons to accommodate.

### Multi-specialty Hospital setting

1. These hospitals are most likely to be already following most of these guidelines (OSWB Practice Management Guidelines).
2. Most of these hospitals have been open during the lockdown and so the general operational logistics have been worked out as they are managed by professionals.
3. They have all the resources – financial and human, to keep their services going. It is likely that they already have strategies in place to tide over the crisis.
4. But the challenges of the Eye Department are unique and mostly different from other departments. So it may take some time for hospital authorities to understand these and work upon them. The ophthalmologists should put in place the protocols for 'Red eye' or conjunctivitis cases.
5. Since some of the other departments are probably geared up to admit and treat COVID-19 cases, it may also turn out easier for these hospitals to put the protocols for Eye Department in place faster.
6. If these hospitals are designated for treating COVID-19 cases also, then the other ophthalmologists may refer their COVID-19 suspects or positive cases to these departments possibly.
7. But the presence of COVID-19 positive cases in the hospital may be a concern for increased risk of transmission among the health care workers.
8. Some of these hospitals may face financial crunches and other problems typical of corporates, as they have huge investments to service.

### Government Hospital setting

1. The situation in a Government Hospital with an Eye Department is controlled by the Government itself and so there is hardly a scope for putting in place the recommendations (OSWB Practice Management Guidelines) by an individual member.
2. But the ophthalmologist should be aware of the preferred patterns of safeguards which are recommended in an ophthalmic setting.
3. The Head of Departments usually have to take many calls in Govt. hospitals and so they may refer to these suggestions whenever needed.
4. The Govt. generally has all infrastructural and human resources, to put in place most of the necessary protocols. They are in a position to procure and provide essential PPE to the Govt. doctors in a situation where there is a scarcity of all these items in the market.
5. There is hardly any talk of financial crunch in Govt. Health spending now whereas it is expected in the private sector. But there is a chance of deduction from pay package as seen in some states.

### Big Eye Hospital setting

1. Most of the guidelines as given in this document (OSWB Practice Management Guidelines) are applicable for the Big Eye Hospital settings.
2. They have all the resources, necessary manpower and business leadership to stay with the times.
3. Many of the authorities who are providing the consensus documents belong to these institutions.
4. But they are also impacted by some problems unique to them like capacity utilization, overhead costs, staff management etc.
5. Due to larger patient load, there is always the chance of positive cases of COVID-19 in these hospitals which can lead to bigger risks and it may also mean higher chances of closure sometimes.
6. These hospitals may need to restructure their operations in order to maintain all the safety recommendations.
7. Some of these facilities may have to revisit their financial positions because this pandemic has caught them unawares, without letting any time for adjustments of planning and allocation.