



LV Prasad Eye Institute

GUIDELINES FOR POST COVID-19 OPERATIONS

LOCKDOWN THE VIRUS

**LVPEI Staggered EXIT Strategy Practice document for COVID-19
STAGGERED EXIT from current Lockdown for Village Vision Complex**

Released - APRIL 2020

(This document is complementary to and follows all the relevant rules, regulations, processes and principles of our earlier document released on March 17, 2020 with additional modifications till March 31, 2020 (appended at the end))

GUIDELINES FOR POST COVID-19 OPERATIONS

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Background:

VISION: Implementation of Public health measures for LOCKDOWN of THE VIRUS COVID-19 will provide safe environment to our staff and visitors to function

GOAL: We need to isolate/LOCKDOWN the VIRUS and allow work and activity of people and our LVPEI hospitals.

OBJECTIVES: Three main objectives:

- a) Protect health care workforce using protocols that are robust and reduce the risk
- b) Prevent spread among patients
- c) Prioritise care to those who need it most

Challenges:

- a) Limited resources
- b) Lack of knowledge and practice among staff and patients
- c) Huge demand of services

Strategy planning:

Level of threat based actions: We followed the 'Disease Outbreak Response System Condition' (DORSCON) developed by Singapore.¹ It is a colour-coded framework that shows the current disease situation. The framework provides us with general guidelines on what needs to be done to prevent and reduce the impact of infections. It takes into account

- The current disease situation overseas
- How transmissible the disease is
- How likely it is to arrive in your country
- What impact it may have on your community

At each step, importance was given to:

- Clear evidence from literature and protocols
- Clear Instructions and communication
- Monitoring and auditing of compliances
- Getting feedback and Improving
- Daily meeting of nodal and strategy teams with daily updated data and actions.

DORSCON ALERT LEVELS

(Disease Outbreak Response System Condition)

	GREEN	YELLOW	ORANGE	RED
Nature of Disease	Disease is mild OR Disease is severe but does not spread easily from person to person (e.g. MERS, H7N9)	Disease is severe and spreads easily from person to person but is occurring outside Singapore. OR Disease is spreading in Singapore but is (a) Typically mild i.e only slightly more severe than seasonal influenza. Could be severe in vulnerable groups. (e.g. H1N1 pandemic) OR (b) being contained	Disease is severe AND spreads easily from person to person, but disease has not spread widely in Singapore and is being contained (e.g. SARS experience in Singapore)	Disease is severe AND is spreading widely
Impact on Daily Life	Minimal disruption e.g. border screening, travel advice	Minimal disruption e.g. additional measures at border and/or healthcare settings expected, higher work and school absenteeism likely	Moderate disruption e.g. quarantine, temperature screening, visitor restrictions at hospitals	Major disruption e.g. school closures, work from home orders, significant number of deaths.
Advice to Public	<ul style="list-style-type: none"> Be socially responsible: if you are sick, stay at home Maintain good personal hygiene Look out for health advisories 	<ul style="list-style-type: none"> Be socially responsible: if you are sick, stay at home Maintain good personal hygiene Look out for health advisories 	<ul style="list-style-type: none"> Be socially responsible: if you are sick, stay at home Maintain good personal hygiene Look out for health advisories Comply with control measures 	<ul style="list-style-type: none"> Be socially responsible: if you are sick, stay at home Maintain good personal hygiene Look out for health advisories Comply with control measures Practise social distancing: avoid crowded areas

This document is considering that we are in orange zone

Task Force

1. Nodal Person In-charge: Dr Subhadra Jalali and Dr Savitri Sharma

They will work on all inputs and information.

- Roles and responsibilities:** They will work to bring forth the best Global and National practices and updated knowledge. They will coordinate implementation of Govt. circulars and regularly update all stakeholders. They will be responsible for coordination with all members of execution committee, including but not limited to dissemination of Instructions, monitoring compliance and effectiveness, surveillance data of any cases detected, analysis of the situation, communication details and any emergency measures. They will also coordinate with other Campus Directors and their designated Executives for setting up infection containment across the network.
- All Instructions will be released only from the Head of Quality.** Head of Infection control will do so, in dire emergency, if Head of Quality is not available.

2. Strategy committee:

Dr Rohit C Khanna, Mr V Rajashekar, Dr Varsha Rathi, Mr Joji Prasad, Mr Niranjana Kumar, Dr M Srinivas, Mr Jachin D William's and Ms Asha Latha.

- a. **Roles and Responsibilities:** To brainstorm various issues and come up with action items; to keep updated with situation on the ground.
- 3. **Action Plan Execution Committee:** SC admin and the lead ophthalmologist from SC and VCC for VC.

Roles and Responsibilities:

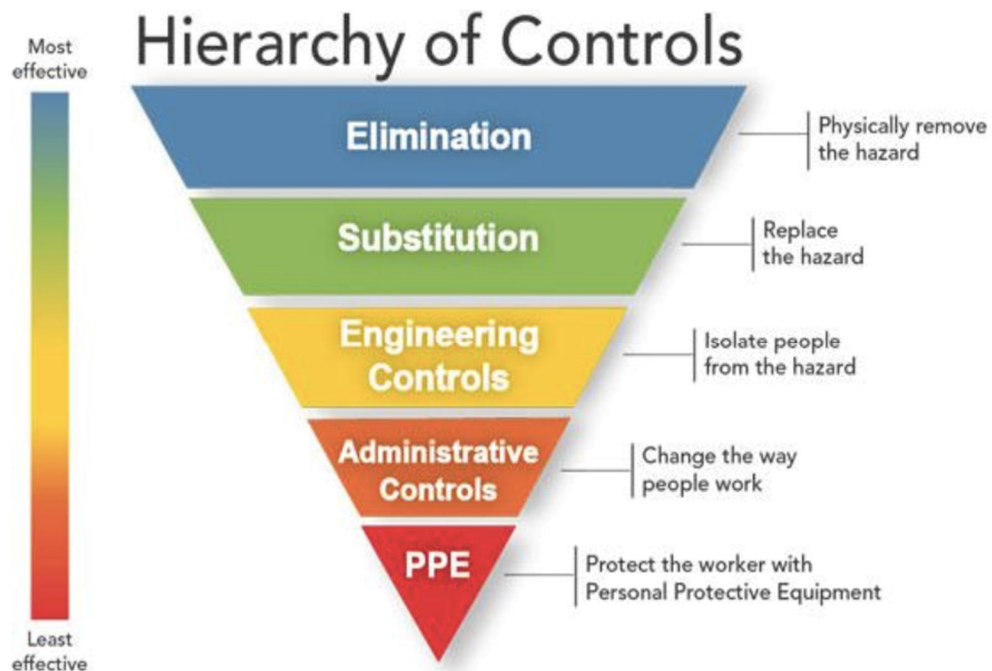
- a. To ensure strict and universal implementation of all Instructions
- b. To monitor compliance
- c. To provide feedback to Nodal committee about any difficulties/ non-compliances
- d. To escalate issues immediately to nodal committee in case of any emergent situation
- e. Phone numbers: SJ 9848995088; S. Sharma:99899 95521

Facts and Concepts:

- A. COVID-19 virus is going to be around for a pretty long time in both active and dormant states and has a strong potential to re-emerge even if contained currently.
- B. The virus resides in human body and **exits** primarily from hands, nose and mouth of an infected person. There are reports on feco-oral transmission too. The infected person can be asymptomatic.² (**EXIT POINTS**)
- C. The virus transmits or **enters** from one person to another again through hands, mouth and nose either directly or via droplets, fomites and transient air borne particles. There are reports of feco-oral route of transmission too.² (**ENTRY POINTS**)
- D. Apart from this, **airborne transmission is a possibility, especially in ‘hot spot’ areas.** Hence, in these areas, we need to take measure to control airborne transmission.
- E. **COVID-19 Symptoms:** The symptoms of COVID-19 appear within two to 14 days after exposure and include fever, cough, a runny nose and difficulty in breathing. Currently, there is no treatment for COVID-19.
- F. Symptomatic persons will not be allowed entry. Temperature and symptoms check will continue at entry points as in our earlier document. COVID positive cured patients who have been certified negative, will be allowed. COVID positive asymptomatic patients are expected to be in isolation till they become negative and will not be allowed.
- G. Every person entering the LVPEI premises is a potential COVID-Asymptomatic carrier

Hierarchy of Controls

Traditionally, a hierarchy of controls has been used as a means of determining how to implement feasible and effective control solutions. The idea behind this hierarchy is that the control methods at the top of graphic are potentially more effective and protective than those at the bottom. Following this hierarchy normally leads to the implementation of inherently safer systems, where the risk of illness or injury has been substantially reduced.²



Key principles to be followed

1. Social distancing

- Maintain a distance of MINIMUM six feet between two people.
- All areas are being decongested and crowding is to be avoided

SOCIAL DISTANCING:

What does it mean?

Social distancing is the practice of reducing close contact between people to slow the spread of infections or diseases. Social distancing measures include limiting large groups of people coming together, closing buildings and cancelling events.

AVOID	USE CAUTION	SAFE TO DO
Group Gatherings Sleep Overs Playdates Concerts Theatre Outings Athletic Events Crowded Retail Stores Malls Workouts in Gyms Visitors in your House Non-essential workers in your house Mass Transit Systems	Visit a local Restaurant Visit Grocery Store Get Take Out Pick up Medications Play Tennis in a Park Visiting the Library Church Services Traveling	Take a Walk Go for a Hike Yard Work Play in your Yard Clean out a Closet Read a Good Book Listen to Music Cook a Meal Family Game Night Go for a Drive Group Video Chats Stream a favorite show Check on a Friend Check on Elderly Neighbour

2. Hand hygiene

- Any 70% alcohol-based solution is suitable for cleaning (minimum 20 seconds) or by washing with soap and water (minimum 40 seconds). If hands are visibly soiled, use soap and water for hand wash. Follow the technique as per WHO guidelines.³
- Hand hygiene should be performed frequently, before and after examination of a patient.

Hand-washing technique with soap and water



Wet hands with water



Apply enough soap to cover all hand surfaces



Rub hands palm to palm



Rub back of each hand with palm of other hand with fingers interlaced



Rub palm to palm with fingers interlaced



Rub with back of fingers to opposing palms with fingers interlocked



Rub each thumb clasped in opposite hand using a rotational movement



Rub tips of fingers in opposite palm in a circular motion



Rub each wrist with opposite hand



Rinse hands with water



Use elbow to turn off tap



Dry thoroughly with a single-use towel



Hand washing should take 15–30 seconds

(Source: <https://images.app.goo.gl/UKMwZccDjwA5SGaUA>)



Alcohol handrub hand hygiene technique – for visibly clean hands



1
Apply a small amount (about 3 ml) of the product in a cupped hand



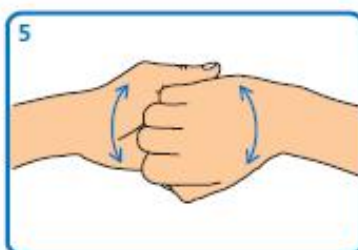
2
Rub hands together palm to palm, spreading the handrub over the hands



3
Rub back of each hand with palm of other hand with fingers interlaced



4
Rub palm to palm with fingers interlaced



5
Rub back of fingers to opposing palms with fingers interlocked



6
Rub each thumb clasped in opposite hand using a rotational movement



7
Rub tips of fingers in opposite palm in a circular motion



8
Rub each wrist with opposite hand



9
Wait until product has evaporated and hands are dry (do not use paper towels)



10
The process should take 15–30 seconds



(Source: <https://images.app.goo.gl/o1XAEpdwAcG48M3RA>)

3. Respiratory etiquettes

- a. Turn head away from others when coughing/sneezing
- b. Cover the nose and mouth with a tissue.
- c. If tissues are used, discard immediately into the trash
- d. Cough/sneeze into your sleeve if no tissue is available
- e. Clean your hands with soap and water or alcohol based products
- f. Do not spit here and there
- g. Encourage handwashing for patients with respiratory symptoms

4. Use of mask

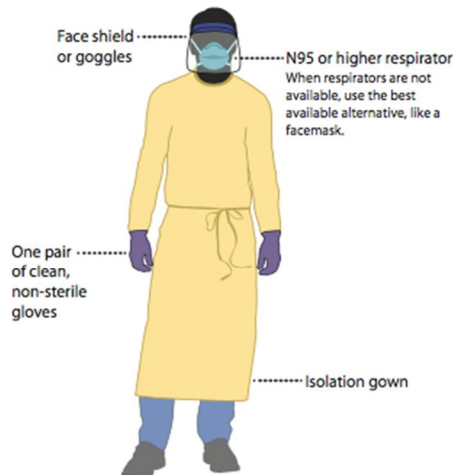
- a. Appropriate use and of masks and Personal Protective Equipment (PPE) is essential to ensure they are effective and to avoid any increase in risk of transmission associated with their incorrect use and disposal
- b. Place mask carefully to cover mouth and nose and tie securely to minimize any gaps between the face and the mask.
- c. While in use, avoid touching the mask.
- d. Remove the mask by using appropriate technique (i.e. do not touch the front but remove the lace from behind).
- e. Do not reuse or use triple layer surgical mask/N 95 masks for more than 8 hours. If using the same mask for multiple patients, transmission to patient must be avoided by not touching the front of the mask. Additionally, do not allow mask to hang down on shirt/clothing when not examining patients.
- f. Mask and PPE etiquettes should be followed by hospital staff as well.
- g. Guidelines for using N95 Mask:
https://www.youtube.com/watch?v=zoxpvDVo_NI
- h. Disinfection of masks can be done (Guidelines below).⁴

Can Facial Masks be Disinfected for Re-use? (Measurement results by 4C Air Inc.)					
Samples	Meltblown fiber filtration media		Static-charged cotton		E. Coli. Disinfection Efficiency
	Filtration efficiency (%)	Pressure drop (Pa)	Filtration efficiency (%)	Pressure drop (Pa)	
70°C hot air in oven, 30min	96.60	8.00	70.16	4.67	>99%
UV light, 30min	95.50	7.00	77.72	6.00	>99%
75% alcohol, soaking and drying	56.33	7.67	29.24	5.33	>99%
Chlorine-based disinfection, 5min	73.11	9.00	57.33	7.00	>99%
Hot water vapor from boiling water, 10min	94.74	8.00	77.65	7.00	>99%
Initial samples before treatment	96.76	8.33	78.01	5.33	
Conclusions: DO NOT use alcohol and chlorine-based disinfection methods. These will remove the static charge in the microfibers in N95 facial masks, reducing filtration efficiency. In addition, chlorine also retains gas after de-contamination and these fumes may be harmful.					
Table 2: Data supplied courtesy of Professor Yi Cui Materials Science and Engineering, Stanford University and Professor Steven Chu Physics and Molecular & Cellular Physiology, Stanford University on behalf of 4C Air Incorporated.					

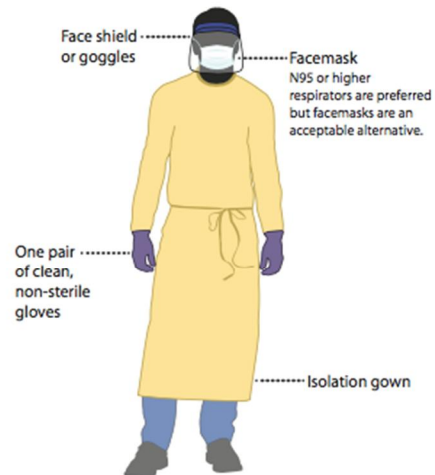
5. Use of Personal Protective Equipment (PPE) ⁵

- Components of PPE are goggles, face-shield, mask, gloves, coverall/gowns (with or without aprons), head cover and shoe cover
- Do not wear watch, rings, bangles, earrings etc while wearing PPE
- Wear PPE in the sequence shown below (Donning of PPE)
- Remove PPE in the reverse order (Shown below) that it was worn and discard the material in appropriately colored disposal bags.

Preferred PPE – Use N95 or Higher Respirator

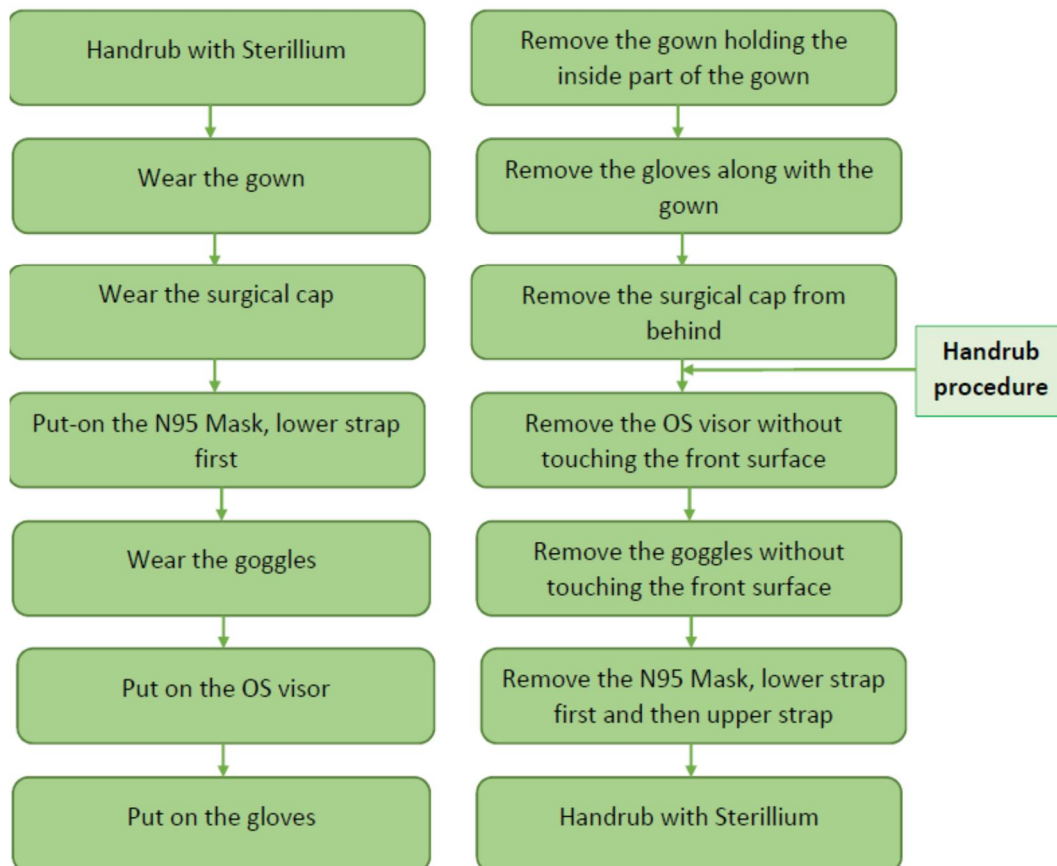


Acceptable Alternative PPE – Use Facemask



[cdc.gov/COVID19](https://www.cdc.gov/COVID19)

Donning and Removing the Personal Protection Equipment – Sequence



Adapted from Centers for Disease Control and Prevention (CDC) Handout:
<https://www.cdc.gov/hai/pdfs/ppe/ppe-sequence.pdf>

Goal: **0** New Cases

Do The Five:

Wash hands often
Cough into elbow/tissue
Don't touch your face
Stay >3 feet apart
Stay home if you feel sick

5

Limit in-person
gatherings to **10** people

100 % Adherence

Approach

We need to **LOCKDOWN** the **VIRUS EXITING** and **VIRUS ENTRY POINTS** of the **human body** between each and every **PERSON** on our premises. **FULL PPE** to every person entering our premises (staff/patients/attendants) is not practical or desirable. **Every individual must take full ownership and responsibility of not contaminating another!**

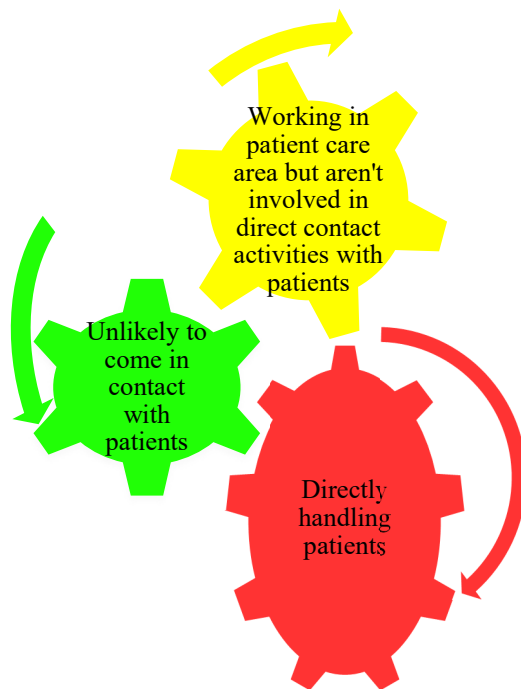
A. Human Resources

So, there will be a strategy to isolate each **Exit and entry virus point of every human body at LVPEI.**

Note: Doctors/Optometrists/nurses/anaesthetists/OT technicians/ ward assistants who actually do a diagnostic or therapeutic procedure on the patient will have additional protection, detailed later (employees marked as red/yellow etc- see below)

1. **Hands:** At entry, every hand needs “lockdown”. Steps will be: wash with soap and water for 40 seconds and/or dry hands with sterilium.
2. **Nose and mouth:** Every entrant will enter only if they have a face mask. This can be cloth or other materials. Fortunately, most public is now getting used to and is coming with masks. Those without masks, can buy it from local pharmacy. Problem with masks alone is that people freely remove it, still touch face/nose/mouth and hence their education is important.

CLASSIFICATION OF EMPLOYEES: All employees under three categories: Red, Yellow and Green



The PPE for each category will be as follows:

	Green	Yellow	Red
Masks	Home made	Triple layer surgical masks	N95
Surgical Cap	No	Yes	Yes
Gloves	Yes*	Yes	Yes
Protective Goggles	No	No	Yes
Visors	Yes	Yes	Yes
Closed shoes	Preferable	Preferable	Yes
Cloth Gowns	No	Yes	Yes
PPE*	No	No	Yes
Social Distancing	Yes, Restrict movements to safe areas	Yes	
Operations Area	Non-clinical areas	Clinical areas	Clinical areas

PPE: Only in suspect / confirmed COVID case⁶

- **Green category employees:** As mentioned in table above
 - Hand covers is good if they are likely to touch surfaces in common areas like lifts, railings, doors, tables etc.
 - If by chance they need to enter clinic area, they have to don linen gowns and hand covers / gloves and caps along with masks and visors that they already have.
 - All those in high risk categories will also be placed in green category so that they follow use of cloth mask, work in safe zones and move in safe areas.

These include the following - 60 years and above, systemic comorbidities like Chronic (long-term) respiratory disease, such as asthma, chronic obstructive pulmonary disease (COPD), bronchiectasis, post tuberculous sequelae, interstitial lung disease, Chronic heart disease, such as heart failure, Chronic kidney disease, Chronic liver disease, such as alcoholic, and viral hepatitis, Chronic neurologic conditions, such as Parkinson's disease, stroke, uncontrolled diabetes, uncontrolled hypertension and cancer. Pregnant ladies to be put under green category until further notice.

- **Yellow category employees:** As mentioned in above table.
- **Red category employees:** As mentioned in table above. FDA has approved good quality linen gowns for body protection in all clinic areas where blood/body fluid spills not anticipated. Considering the scarcity of PPE, we feel that the full PPE kit is best reserved for actually treating COVID or suspect cases.⁶

B. Facility

Procedures and Processes:

1. Stock taking of all materials (masks/caps/visors/gowns/PPE/sterillium/cleaning antiseptics etc)
2. Two cloth masks to each worker, disposable masks daily for those in yellow category and four N95 masks for those in red category. For N95, everyone in red category to receive four of them. If we use mask No 1. on day one, it can be reused on 5th day and one mask can be used maximum for 5 days each.
3. One visor for each employee every month.
4. Four gowns for each in yellow and red category. These have to be changed daily and the first gown will be worn again on 5th day.
5. Stock of at least five PPE per month per centre.
6. Review monthly requirement and place order accordingly.
7. Every queue and seating including seating in counselling/clinic etc to be defined being one meter apart by floor and facility markings for social distancing.
8. There should be a physical barrier at the entry point so that only the patient can enter the premises.
9. There should be a hand washing facility and ample hand sanitizers (70 % alcohol based) at the point of entry.
10. No shaking hands
11. Masks should be worn by everyone irrespective of any symptoms of COVID-19 or not.
12. Maintain a daily list of all staff, patients, their attendants and other hospital visitors with their verified mobile number and verified ID proof (for contact tracing if necessary, in the future).
13. Maintain one meter distance at points where queue is likely to form- the screening desk, the front office/ registration counter, the billing counter, the pharmacy, etc.
14. Maintain unidirectional flow of patients, i.e. entry and exit must be different if there are two doors. Place partitions to separate the movement of patients going in and out of the waiting area
15. Coupled, numbered, dated sticker to be given to each patient and his attender to disallow tricking of the system.

16. Self-declaration form to be filled by each patient and attendant
17. Twice a day cleaning of floor and chairs and any hand rails by wet mopping by house-keeping staff. Computer key boards/ slit lamp and slit lamp barrier sheets cleaning by doctors/Optometrists with sterilium wipes/alcohol wipes as needed. Each OPD staff also to take responsibility of cleaning their surfaces at least 4 times a day.
18. Open door policy and good air ventilation without AC usage in OPD.
19. No newspaper or magazine in examination room
20. Staggered few appointments over extended time period and watch inflow and outflow of patients.
21. Digital transfer of reports/receipts etc so that paper handling is minimized.
22. Clinical areas to be cordoned off from non-clinical areas.
23. Have minimum conversation policy will continue, so that droplet load is minimal.
24. Encourage teleconsultation, especially for follow ups
25. In restroom, flush toilets with closed lids as there are reports of feco-oral transmission.
26. Avoiding dried-out drains in floors and other sanitary devices by regularly adding water (every 3 weeks depending on climate) so that the water seal works properly.
27. Use gloves/Elbows/cloth for elevators knobs and door handles.
28. Avoid elevators for some minutes when other people are just coming out (there are reports that the breath aerosol is hanging around for some minutes in closed places).

Getting your workplace ready for COVID-19 ⁷

1. Develop a plan if someone become ill with COVID-19. The plan should cover putting the ill person in a room or area where they are isolated from others in the workplace, limiting the number of people who have contact with the sick person and contacting the local health authorities
2. Support them, without inviting stigma and discrimination into your workplace.
3. Inform local public health authority
4. Have a back-up plan for each employee
5. Emphasize key points such as the importance of staying away from work even if they have only mild symptoms or have had to take simple medications (e.g. paracetamol, ibuprofen) which may mask the symptoms
6. Addresses the mental health and social consequences of a case of COVID-19 in the workplace or in the community and offer information and support.

Patient Flow:

Patient care policy

1. **Appointment System:** All slots for patients will be of fixed time and allotted on first come first served basis. Fresh and follow-up slots can be the only two categories while giving appointment. Ratio can be determined by consensus.
2. Administrator to have a list of hotspot areas and share the updated list every day with the Security personnel and community screening program (CSP) staff and the doctor and vision center coordinator
3. **Patient triaging:** Screening and Triaging of patients will be reinforced and monitored, by local administrators. All appointments will get an SMS at 9.00 am **one day prior** to appointment. **“If you have cold, cough, breathlessness, head-ache and fever, please consult a general physician before coming for your eye check up.”**
For those visiting the centre, objectively temperature checking for all patients,

attendants coming to our hospitals (including staff). If anyone with fever, cough, cold they would be asked to consult local physician or government hospital and reschedule appointment. For staff, they would be asked to stay home and get treatment and report after recovery.

4. Note down contact details of patients, attendants, and their ID card in a register. (Maybe we can give them smart phone for the time being of a tablet of VC so that they can take photos of the I card – At the end of the day a list is created by the admin)
5. Check hand if there is stamp of quarantine on patient, attendant or visitor
6. COVID-19 Infected patients with eye problems will not be attended (unless real emergency) to and will be directed to Govt. hospital where systemic and eye care have been set up very well by Govt.
7. **International patients: Follow the guidelines from Ministry of Health.** Should they decide to travel, they need to be updated of Govt of India and their own Govt. notifications regarding Travel advisories, Quarantine rulings and medical test requirement. These could change on day to day basis, and are available daily on Govt. of India Health and Family welfare website. Also keep in touch with the centre for your appointment in consultation with your doctor.
8. Those with international travel history: If patient has obvious cough/cold/fever or says yes or has travelled international in last 4 weeks or has come in contact with such a traveler, then these patients to be sent back or referred to Govt. hospital, note their phone number and address and inform local govt health contact; Eye care appointment is rescheduled.
9. If Patient or family member visited international place, no symptoms, non – emergency: stay at home and reschedule after 4-6 weeks. If emergency, take them in and maintain all hygienic measures
10. Patients to avoid public transportation, rather take taxi or self-driving preferred. These can also be contaminated.
11. No attender allowed (unless the patient is a child or is having any disability).
12. Avoid in-patients and if there are in-patients, make sure we do not allow more than one visitor and all telephonic appointment seekers should be informed about the attendant policy and all printed appointments slips should carry one attendant policy.
13. All patients to wear masks and cover their nose and mouth. All will be given hand sanitizer
14. Disposable glasses to be used for water dispensing
15. No newspaper, magazines, brochures at this moment

Team for clinical care

1. It is purely based on the available personnel and how you can split into two teams but not loose on your efficiency.
2. Where there were two teams, have one team in OPD to start with and slowly modify based on the virus spread in community. Have a backup team ready in case any teams have to be quarantined.
3. The teams are physically segregated and do not meet even socially. The planning for segregation should go to the finest detail: including; where do they sit in leisure time; where do they eat food etc. (these apply as both the teams are likely to be in the campus same time)

Clinical practice

Outpatient

1. Examination routine: Best Clinical Ophthalmology OPD practices to prevent transfer of Infection from one patient to other will be reinforced and monitored by all end users
2. All slit lamps to have acrylic sheets attached so that the direct contact with the patients is avoided. There are two options, as per published literature and information by all users. One to use the discarded x-ray raw sheets (see figure below). Second option that has been used by others are the overhead projection sheets that should be available at bookstores? or similar material. Whatever material is used should be able to clean with alcohol.



3. Air conditioning restriction/ stopping and open door policy at all locations (except operating room)
4. Tell the patient that you will see them and no talking when you are examining the patient
5. Ask patient about cough, fever, breathless.
6. Non-mydratic fundus camera (if available) can be used to expedite the examination process.
7. For conjunctivitis, follow the guidelines developed for 'Patient with Conjunctivitis'
8. Do not prescribe NSAID to any patient
9. No community screening programs till further notice
10. For COVID-19 positive or suspect patient – Refer to nearest government hospital

Inpatient

1. Temperature measurement with infrared digital thermometer
2. ECG electrodes and wires cleaned with alcohol swabs
3. History of COVID exposure-History of fever, cough, travel history, history of contact with any COVID patient

Operating room

1. As far as possible, perform day care surgeries
2. Before operating, COVID testing should preferably be performed. If COVID positive, defer surgery (unless REAL emergency)
3. Routine chest X-ray before each surgery. Other investigations that can be done are CT chest, C-reactive protein and serum amyloid A

4. A physician fitness to be obtained for every patient including ruling out airway pathologies, particularly underlying pneumonia.
5. AHU with increase fresh air exchange. If possible, consider retrofitting dynamic UV and ultra-filters to HEPA, reduce turbulence in OR e.g. minimize opening and closing doors and moving machines.
6. Choose the quickest possible surgical procedure
7. Try to avoid GA unless mandatory. Prefer topical anesthesia over local anesthesia
8. Avoid DCR and endonasal procedures
9. Minimum number of staff in the OT
10. Stop positive ventilation in theatre during procedure and for at least 20 minutes after the patient has left theatre
11. Smoke evacuation for diathermy
12. For phacoemulsification it should be assumed that phaco with excess BSS near the vibrating tip can generate aerosols. Considering there are a few reports of 2019-n-cov in tears, a clear plastic sheet over the surgical area to catch any generated aerosols is recommended.
13. As practiced, scrub after each case and change all consumables after each case
14. Protocol based disinfection of the OT should be done after each surgical procedure
15. **No surgery on confirmed or suspect COVID-19 patients: Refer to nearest Government facility**

Diagnostic Equipment and Procedures:

1. No aerosol generating procedures – Ex: Non-contact tonometry (NCT)
2. Ancillary testing including, OCT, FFA, corneal topography, A Scan, when essential will be done. Each machine lead faculty/Optomety faculty will help with barrier protocol to prevent cross contamination. All instruments to be cleaned with 70% isopropyl alcohol sterile wipes. In place of applanation, tonopen is preferred and the sleeve is to be thrown away after each case.
3. While performing gonioscopy, applanation tonometry, keratometry, A scan, Oculyser, HVF, so on, no talking and thoroughly clean instruments before and after every new case. Gonioscope to be washed with soap and water after every use. Applanation tonometry to be cleaned with 70% isopropyl alcohol sterile wipes after every patient. The tonometer to be dipped twice daily for 5 minutes in 1:10 Sodium hypochlorite solution to disinfect the prisms
4. For indirect ophthalmoscopy, use cotton swab stick instead and throw it away.
5. Stop Contact Lens trial, direct ophthalmoscopic evaluation.
6. **Refraction and opticals:** See optical protocol

Cleaning

1. All patient care areas on all floors, the furniture surfaces and furniture fixtures (Door handles, Knobs, Handrails etc.) will be wiped more frequently (every two hourly). Surfaces like walls, mirrors etc should be cleaned once daily.

<p>“High frequency” touch surfaces</p> <ul style="list-style-type: none"> • Telephone • Mobile phone/pager • Door knobs / handles • Lift/elevator buttons • Keypad & Mouse • Chair arms (including wheel chairs) • Hand rails • Side rails of stretchers 		 
 		 
		 
F R E Q U E N C Y	Sweeping and mopping twice daily (morning and evening).	 
	Cleaning of the hand rails of the stairs cases, grill- twice daily.	 
	Lifts to be wiped on all sides including the floor- twice daily	 
	Main doors, door handles, knobs to be cleaned every 4 hours.	 
	Recreation clubs to be cleaned twice daily	 
	7% Lysol spray in common areas with high touch points like gates, barricades once a day by Environmental engineering team.	 
	Common waiting area chairs (outside the buildings) to be cleaned every 4 hours.	 

2. **Chemical to be used:** CDC guidelines say any EPA registered household disinfectant is sufficient. Details of all types of chemicals currently in use for cleaning at LVPEI were evaluated by Dr. Savitri Sharma in terms of efficacy, certification, availability, pricing, ease of use, any side effects etc. “Lemoniser’ also known as “Grenadier” was found most suitable and was finalized for usage both, as a spray or as a solution to clean all fixtures. It does not leave any stains/deposits.
3. **Who?** House- keeping staff on all floors will clean thrice a day all fixtures including the door handles, table-tops, hand-rails, furniture etc. with 1:60 dilution
4. *How many times in a day:* Twice daily was considered sufficient for non-exam room areas and four times in exam rooms.
5. In exam rooms, even Optometry cadre staff are also trained to do so. Slit lamp/ mouse/ keyboard/tablets will be cleaned by optometry staff/ fellows/ doctors twice a day and in between patients as often as needed using alcohol wipes. Clean hands with sterillium before touching any equipment once patient has been touched.
6. Clean slit lamp/mouse and computers etc with alcohol and do not go back and forth from patient to equipment’s. Slit lamp to be cleaned after each patient.
7. While performing gonioscopy, keratometry, A scan, B Scan, Oculyser, HVF, so on, no talking and thoroughly clean instruments before and after every new case.
8. OPD – occluders (both the one for testing binocular vision and the one used in trial frame), trial frames, lenses to be wiped with alcohol swabs after checking vision or doing refraction for each case. All non-essential non-critical examinations should be avoided, and patient explained the truncated protocol and need for more elaborate testing in future as feasible.
9. **Wards:** Bedsheets /Towels – to be washed with soap and water after single use. Do not reuse these without washing. As of now, do not keep blankets in wards, if you have – wash and store those. For cleaning, either machine wash with warm water or if its not possible, soak the linen in hot water and soap for 20 min. Finally laundry to be rinsed with clean water and linen allowed to be dried fully in sunlight.
10. **Opticals:** Patient should use Sterilium before touching any frames. Sample frames tried by patients, mirror and furniture should be cleaned immediately after every use.
11. **Vehicle cleaning:** Cleaning of the vehicle twice a day including handles, window panels, the seats twice a day with Lemonizer
12. **Toilets:** Wear disposable protective gloves and shoe cover while cleaning. Use separate set of cleaning material for sink and commode. Disinfect all cleaning equipment after using.
13. **Maintain separate record of waste generated from COVID positive patient**
14. While receiving any material to centres – keep the materials separate and wash hands after touching those. Same when the material is taken to OR. To follow the strict protocols in OR
15. All the canteen staff should maintain personal hygiene and also maintain the dining areas. Canteen Staff should have enough personal protection while handling/serving food. Request the canteen vendor to provide the required protection gear to all the staff working in our facilities. Any of the canteen staff having cold/cough/ fever should be given leave.
16. Personal hygiene all over, including hand hygiene. With clean hands check your phones then keep cell phones in bag after checking in morning. Check during lunch time after washing and drying hands. Check after cleaning hands at the end of the day. Give intercom number or telephone department number to family for emergency

contact. No need to use UNSAFE cell phones or contaminate them and take any potential bugs home.

17. All the reception desks will have hand sanitizers placed on the desks for patients and staff use. All the common patient care areas will also have wall mounted hand sanitizers dispensers. HK staff will be responsible to refill all the hand sanitizers dispensers from time to time. Stores HOD has been advised to review the hand sanitizer stock in the main stores and if required order for additional stocks

Staff training and tracking and cleaning and hygiene

AIM: Vigorous training and tracking of each employee and periodic random check. ***This is the bedrock of success as we pass through the transition phase of staggered opening up***

1. **Other processes:** Training material: Dr. Varsha Rathi will coordinate the training material from the Quality Team to make it simple and precise. Once ready, it will be passed down the employee tree using various communication channels. Currently main channel would be whatsapp groups, our website, other social media, intranet and YouTube with links on whatsapp and email. Quality team will check that every employee has gone through the training and will do the quality checks.
2. Education of staff, improved hygiene surveillance and information sharing will be done. Thumb scans are not more risk than the other equipment that are shared by staff, hence can continue. Hand hygiene before and after scan and also after touching other shared infrastructure will be reiterated to all staff. Just to re-emphasize, infection control is possible only if we clean our hands and do not touch your face/eyes/nose with unwashed hands.
3. Also all staff to download 'Arogya Setu' app
4. Female staff to – tie hair and wear shoes as well as wear minimum accessories and jewelry – watch, rings etc.

1. Monitoring

1. Monitoring checklist have been developed by Quality team. This includes monitoring of attendant policy, awareness of health messages and compliance and cafeteria hygiene.
2. Monitoring would be a general responsibility. While daily monitoring is initiated by Quality department, all execution team members and responsible persons must monitor their own areas and reinforce compliance.
3. Beside this, all the execution committee and Quality team will personally meet each and every employee in each and every department including contract employees, as an ongoing activity.
4. The Quality team will share the Instructions and forms with all across network. They pilot test for one or two days any checklists here at centre of excellence and then is good to go across network.
5. Monitoring systems: Know who is checking, what is being checked and please monitor each other and encourage colleagues/patients/visitors to follow instruction.
6. Roles of each person at various vantage points is given below

2. Communication Strategy

1. Larger Size awareness posters placed at all prominent locations.
2. Robust and authentic communication with all cadres of staff on a daily basis. Daily updates available on Intranet. Neha will prepare one message daily from all the

material copied to her, and after getting it cleared by SJ, will post it on intranet daily “one”.

3. Regular dialogue and answering anxieties of staff by nodal team. More effort needed on this front as individuals get lots of inputs and get anxious. These to be addressed more comprehensively and one to one also as the number of cases will increase.

3. Staff travel

1. All travel (national and International) of all faculty and administrators is completely stopped. Discouraged vacations and social travel.
2. All employees coming back from vacation have to report to HR and inform travel history and any history of contact with actual or potential patient. It's also better to ask them to fill a simple form that asks specific questions related to travel history - list all the places you visited. Also ask them if they have any family member who recently came back from international travel. This is very critical so as to avoid exposure of other staff and areas of hospital.
3. Encourage our colleagues to come out and tell of any possible exposure they have. Discussed and started to implement
4. Be vigilant of any person with COVID disease whom you might have been in contact with during these visits.
5. Staff coming to office should avoid public transport. Administrator to prepare list of employees who take public transport and plan on how to get them to work. They need to work with individual department.
6. If possible, make shift schedule to reduce number of working staffs in same time.

4. Visitor policy

1. As far as possible avoid visitors and external meetings
2. Stop all the medical representatives who also visits other general hospitals, could be a potential source.

DISCLAIMER: The views expressed herein have been collected and contributed from LVPEI and non-LVPEI sources. Internet communications cannot be guaranteed to be timely, secure, **error or** virus-free. The sender or LVPEI or any of the names mentioned herein do not accept any liability for the same. This document is shared with all as a means to communicate how and what we are doing and may not be the best way to do things. Applying any part of this document to ones' own practice/processes are at ones' own responsibility.

Feedback: communication@lvpei.org

Resources

1. Preparing a Slit lamp shield: <https://youtu.be/VMMlt2aXGhk>
2. Handwashing technique: <https://www.youtube.com/watch?v=IisgnbMfKvI>
3. Hand cleaning with sanitiser: <https://www.youtube.com/watch?v=4xC-7ZiQoY>
4. <https://www.youtube.com/watch?v=yC61ZPFjujc>
5. Wearing a surgical mask: https://www.youtube.com/watch?v=qilLP_UnaHg
6. Cleaning a mobile phone: <https://www.youtube.com/watch?v=XwPVqXrJitI>

7. <https://www.bbc.com/news/av/technology-51863924/coronavirus-how-to-clean-your-smartphone-safely>
8. <https://www.bbc.com/news/av/health-51722269/coronavirus-hand-washing-and-other-ways-to-protect-yourself>

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General information

COVID-19 Symptoms: The symptoms of COVID-19 appear within two to 14 days after exposure and include fever, cough, a runny nose and difficulty in breathing

COVID-19 Spread: It primarily spreads through the respiratory droplets of infected people. If a person touches a surface or object that has been infected by the virus and then touches his own mouth, nose, or eyes, he/she may get infected. Currently, there is no treatment for COVID-19.

COVID-19 Prevention etiquette:

- Clean your hands often. Use soap and water, or an alcohol-based hand rub.
- Maintain a safe distance from anyone who is coughing or sneezing.
- Don't touch your eyes, nose or mouth.
- Cover your nose and mouth with your bent elbow or a tissue when you cough or sneeze.
- Stay home if you feel unwell. Inform the reporting authority.
- If you have a fever, a cough, and difficulty breathing, seek medical attention.
- Female VT / employees – tie hair and wear shoes
- Wear minimum accessories and jewelry – watch, rings etc.
- Avoid big bags, helmet into VC premises

Social distancing: The WHO recommends that at least one metre (3 feet) distance between people at all times. This is because when someone coughs or sneezes, they spray small liquid droplets from their nose or mouth which may contain virus. This should be followed at times.

Arogya Sethu App: All VTs should download the Arogya Sethu application developed by government of India in the smart phones and keep it active. This is mandatory.

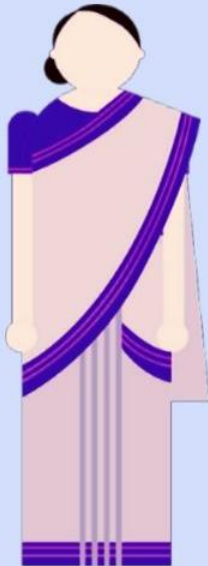
Precautions to be taken when travelling to VC:

- Always carry pocket sanitizer / sterilium, wear face mask and glasses (power/plano)
- Avoid travelling in crowded vehicles
- Avoid shaking hands with anyone and use non-contact method of greeting
- Maintain safe / social distance with co passengers during travel in public transport
- Use of personal vehicle for safe travelling is highly recommended

Social distancing

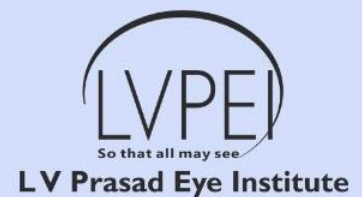


should be practised by everyone.
Assume you are exposed to the coronavirus.



- Maintain at least 6 feet distance from others
- Avoid handshake or any contact with people and sharing objects
- Most importantly, stay at home

**STAY HOME,
STOP THE SPREAD**



Precaution is our best defence against **Covid19**



Use common sense to stay healthy. Wash your hands a lot. Follow good hygiene practices. And, avoid touching or rubbing your nose, mouth and eyes.

Do not rub your eyes!

Good eye care practices in times of **Coronavirus**



This will lower your risk of infection. If you feel an urge to itch or rub your eye or even to adjust your glasses, use a tissue instead of your fingers.

If you must touch your eyes for any reason — even to administer eye medicine — **wash your hands first with soap and water for at least 20 seconds.**

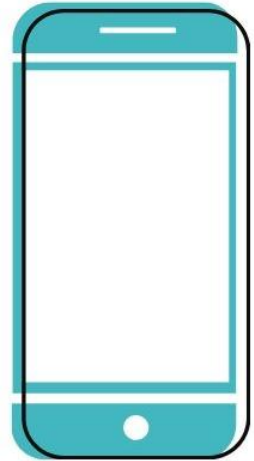


Let's clean your Smartphone (Covid-19)

Unplug your phone, turn it off and
remove its case

Dampen a microfibre cloth with water
& simple home-soap

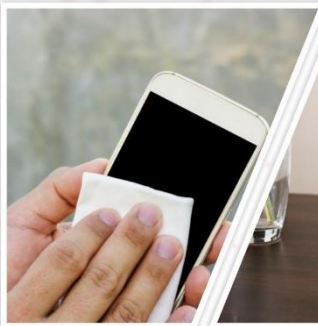
Now gently rub the surface of phone with
the microfibre cloth



Keep in mind, not to get any moisture in
any opening of the phone

Finally, dry your phone with a clean,
dry microfibre cloth

All surfaces that could potentially be contaminated should be **cleaned** periodically. These include door handles, slit lamp handles, keyboard, mouse, computer, cell phones, tables and chair handles etc.



Stay safe from Corona Virus