

Ensuring safety & precautions during and post COVID-19 pandemic



Coronavirus can spread through the eyes, nose, and mouth and cause mild to severe respiratory illness symptoms such as fever, cough, shortness of breath, loss of taste and, smell which can show up 2 to 14 days after a person is exposed. People with severe infections can develop pneumonia and die from complications of the illness. Limiting eye exposure can help. Here's why:

- When a sick person coughs or talks, virus particles can spray from their mouth or nose into another person's face. One is most likely to inhale these droplets through mouth or nose, but they can also enter through eyes.
- One can also become infected by touching something that has the virus on it like a table or doorknob, and then touching his/her face, nose, mouth and eyes.

We know that these are not normal times. In this unprecedented time, it is imperative that we also do everything possible to minimise the risk of COVID-19 (Coronavirus) transmission to our patients and our staff while simultaneously engaging in treating and preventing vision loss in our babies. Given this situation, guidelines for screening and treatment have been developed.

Stakeholders involved

Service providers: Paediatric ophthalmologists, Ophthalmologists, Paediatricians, Neonatologists, Optometrists, Technicians, Neonatal nurses

Beneficiaries: Neonates

Others: Parents, nurses, civil surgeon of district hospitals, Government (Department of maternal and child health), Regional medical officers (RMOs), other Neonatal Intensive Care Unit (NICU) staff, project coordinators and managers, corporate donors, Indian Retinopathy of Prematurity (iROP) society, ophthalmic equipment manufacturers and suppliers.

Training on self-care and personal protection: The staff should receive rigorous training before RoP screening commences and then continuous training at least once a week (for at least one month) about the standard protocols and the periodical update of processes to be brought to the knowledge of the staff.



Questions prior to screening

Before patients enter the registration area, ask the following 4 questions: (as per Government guidelines)

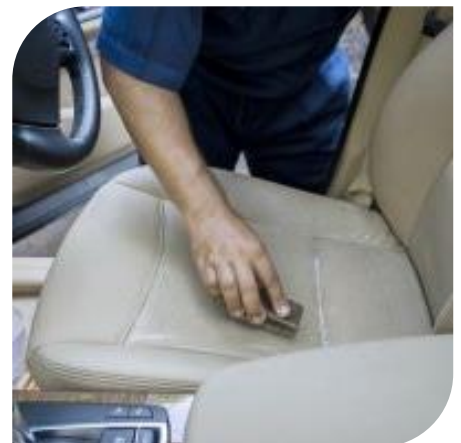
1. International travel/Domestic travel/Travel from a red or containment zone in the last 4 weeks?
2. In the quarantine period? (See stamp on hand or arm)
3. In isolation as someone in the family was COVID-19 positive or had contact with COVID-19 positive patient
4. *Do they have fever (more than 99° F (37.2°C), cough, cold, loss of smell?*

Mission Nayan associated staff could be asked to remember the basic questions to ask and symptoms to watch out for by remembering **PQrST** (Positive, Quarantine, Symptoms, Travel) and **Fools** (Fever, Cold, Cough, Loss of Smell).

If the answer is 'Yes' to any of these 4, the parent/guardian must not enter the hospital and screening will not be performed. The parents/patient will be referred/directed to the nearest COVID-19 designated centre for evaluation as per government guidelines. These are applicable to the physician, caregiver, screening team, and hospital staff as well.

Before screening

- Wear protective gloves (preferably disposable) and face mask (preferably disposable) when stepping out of home or leaving for the hospital for screening. Face shield can be an additional safety gear which will prevent one from touching the face frequently.
- If any the team member is unwell and presents with common cold or flu-like symptoms, then ask them to stay at home.
- Avoid crowding in the vehicle (that is used to commute from base hospital to the screening location). As far as possible only one driver and 2 people (2 technicians or 1 doctor and 1 technician) go for screening.
- Keep enough space whilst being seated in the car to avoid close contact.
- If the baby is not ready for screening and dilatation has not occurred, then it is preferable to wait outside, or in the car, instead of in the normal waiting room of the NICU. This is to protect oneself, the other neonates, and the hospital/office staff from possible virus exposure in crowded waiting areas.
- While heading to the NICU, walk straight to the unit and ensure to maintain a good physical distance as usually the hospital premises is crowded with people.
- In the NICU, ensure to maintain physical distance between the nurses and other hospital staff.
- The vehicle used for transporting the screening team/equipment must be sanitised at the beginning and end of the screening session/day whichever is earlier.



At the Screening venue/NICU



- Wherever possible, Personal Prophylaxis Equipment (PPE) prescribed by the Indian Council of Medical Research (ICMR) must be used. As this is in short supply at this time, the minimum protection that must be used by all members of the screening team are: Facial mask (preferably N95 grade), Head Cap, Eye protective glasses, Sterile gloves and a surgical gown (ideal).
 - Instruct all nurses to wash their hands with liquid soap for at least 30 seconds/sanitise with 60% alcohol and wear the above PPE before touching the neonate. (this is regularly followed even during non-COVID-19 times and should be continued carefully now).
 - Disinfect the screening cot and trolley before placing the neonate on it and ensure that all clothing that is used to cover the screening cot/trolley is clean and sterile (autoclaved).
 - Disinfect and clean all the equipment including laptop, Forus camera and other usable before starting the screening. (this is regularly followed even during non-COVID-19 times and should be continued carefully now).
 - Before touching the neonate, wash hands with liquid soap and water for 30 seconds (this is regularly followed even during non-COVID-19 times and should be continued carefully now).
 - Mother's with their infants waiting for screening must maintain social distance while undergoing dilatation, screening or counselling.
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- The mother must place the infant on a designated cot with a plastic/polythene sheet, with the baby's face uncovered and should step away more than 6 feet.
 - Do not screen if the baby has conjunctivitis.
 - The assistant or nurse (also wearing PPE) may handle the head only if needed during the screening.
 - After screening, the screener must step back more than 6 feet. The mother then comes forward & picks the baby, & the ROP card with the findings are documented by the screening team.
 - The plastic/polythene sheet must be replaced or sanitised with Sterillium/Bacillocid before the next baby is screened.
 - The designated cot must be sanitised using Sterillium/Bacillocid or its equivalent. Other surfaces that may have been touched/handled by the physician/team/parent must also be sanitised before the procedure is repeated for the next baby.
 - If an infant speculum is used during screening it should not be re-used unless sterilised (this is regularly followed even during non-COVID-19 times and should be continued carefully now).
 - Dilating drops must be used without contact with the eye/eye lid of the infant (this is regularly followed even during non-COVID-19 times and should be continued carefully now).
 - All drops must be discarded at the end of the screening session/day whichever is earlier. (this is regularly followed even during non-COVID-19 times and should be continued carefully now).
 - If a retinal camera is used – the lens should be cleaned with disposable alcohol swabs between each case (this is regularly followed even during non-COVID-19 times and should be continued carefully now).
 - If a 20 D or 28D lens is being used, the rim/lens must be washed with soap and water and alcohol swabs must be used on the rim of the lens.

- After screening every neonate, ensure to sanitise hands with sterillium or a sanitiser (with 60% alcohol) and dry hands thoroughly before touching the next baby (this is regularly followed even during non-COVID-19 times and should be continued carefully now).



- If by chance, there is a need to cough or sneeze during the screening, move back from the neonate and the Forus camera and other equipment. Bury the face in the crook of the arm or cover face with a tissue. Wash hands with soap and water right away for 30 seconds.
- After examining a neonate, clean all surfaces, frames, and clinical equipment with disinfectant to maintain the highest level of cleanliness before leaving the NICU (this is regularly followed even during non-COVID-19 times and should be continued carefully now).
- First, finish the screening and then counsel/speak to the parent, so that a safe physical distance is maintained from them and the neonate while answering their queries. Similarly, for nurses and hospital staff maintain enough at least 6 feet distance while talking or discussing the protocol for screening or the next schedule of visits.
- Counsel the mother about safety and hygiene of hand washing as per the instructions and steps laid down by World Health Organization (WHO) and the probable risk for her and her baby of catching the COVID-19 infection.
- Remember to wash hands thoroughly after handing over or handling any sort of Information, Education and, Communication (IEC) material like pamphlet, leaflet, etc. Instruct the same to the mother/parent/NICU staff also accordingly.

Guidelines for laser treatment

- Take all precautions mentioned for the screening process.
- Additionally, clean laser equipment knobs and pulse oximeter with alcohol wipes before and after the procedure.
- The surgeon must avoid touching knobs to adjust as per parameters during the procedure and the assistant can do the job.

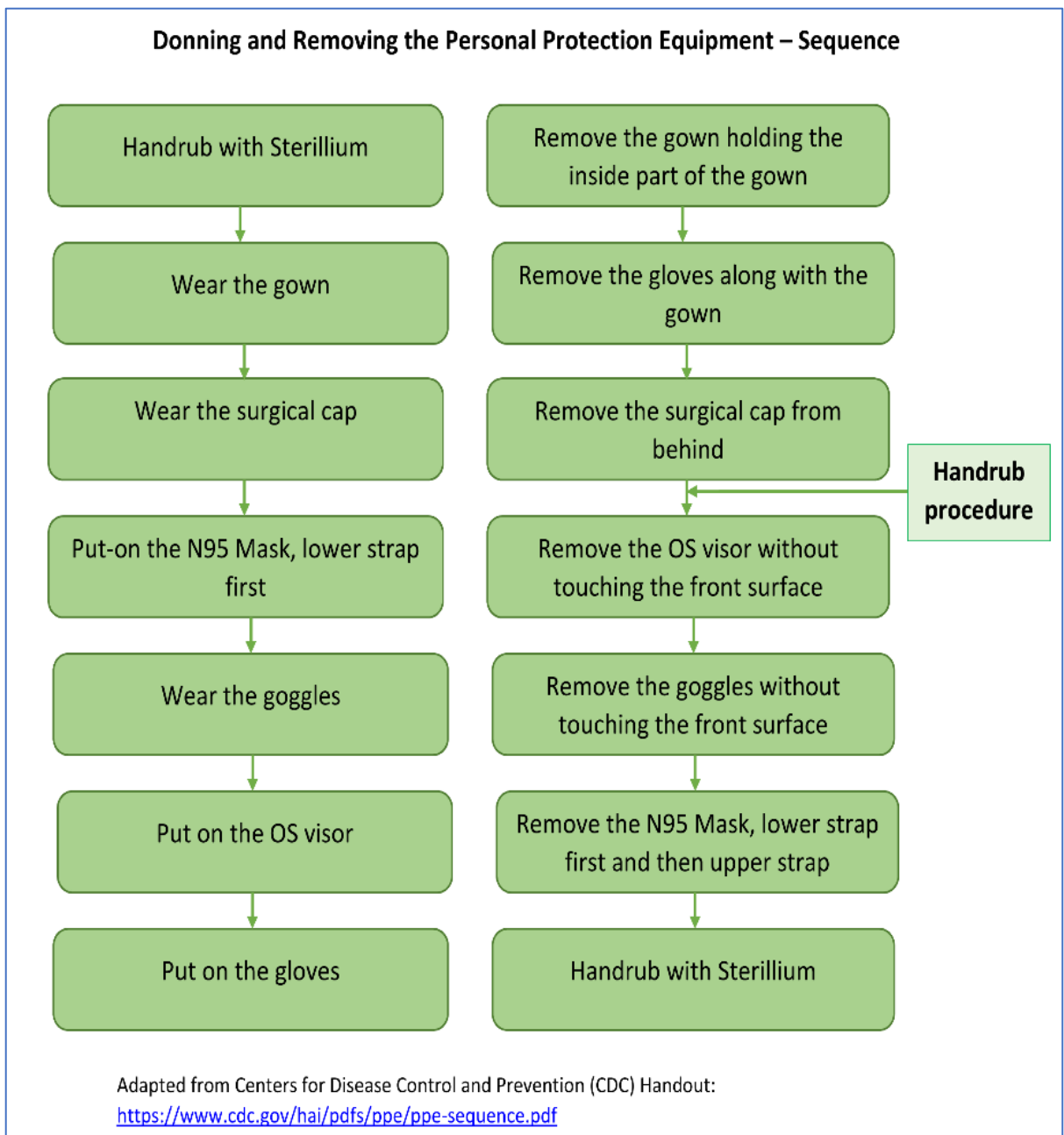


Personal Protective Equipment (PPE):

Wear appropriate PPE that must include hand gloves, cap, protective goggles, mask N95), face shield/visors, outer coat (gown not apron). Hand sanitiser – Personal uses.

- Clinical staff (Ophthalmologist/Technician/Optomtrist): Mask with side sealed with tape, protective eye wear, gown, cap, latex gloves.
- Non clinical staff (Project managers, etc.): Mask, face shield/visor (prevent aerosol during interaction), cap, latex gloves, gown.
- Housekeeping staff (wherever applicable): Triple layer mask, protective eyewear, rubber gloves, gumboot. Good to have-plastic apron.

PPE donning / wearing & Doffing / removing Sequence



PPE discarding process:

- Removal of PPE/discarding in a yellow disposable bag as per the biomedical waste management rule. Hand washing with soap and water for a minimum of 30 seconds needs to be done after the same.
- Used linen will be treated as infected linen; same policy will be applicable for collection and washing.
- After doffing linen MUST be dipped in 1% Sodium Hypochlorite solution. After soaking for 20 minutes it needs to be taken out and washed with soap and clean water.
- Provision of dipping shall be made in advance.

General precautions

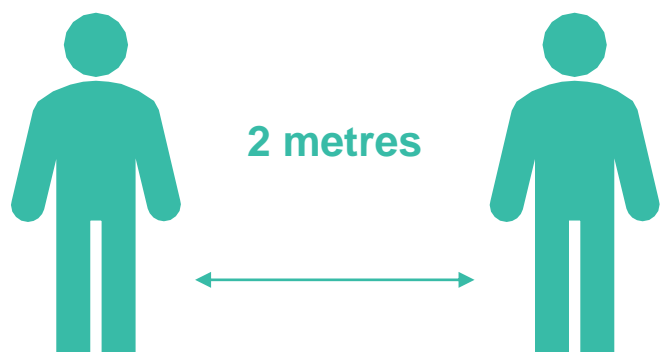
- If one has a refractive error, avoid wearing contact lenses as that leads to touching eyes more often than the average person. If possible wear glasses as it minimises the frequency of hand-to-eye contact.
- If an urge to itch or rub the eye is felt or even to adjust the glasses, use a tissue instead of fingers. Dry eyes can lead to more rubbing, so consider adding moisturising drops to the eye routine.
- Do wash hands before eating, after using the restroom, sneezing, coughing or blowing nose as per the steps and instructions laid down by WHO.
- If symptoms of cough or fever are present or have been in close contact with someone who has these symptoms, kindly do not visit the NICU for screening and inform the hospital authorities accordingly.
- Stay home when sick.

The above guidelines are prepared by Mission for Vision and in case of any queries or more information please feel free to contact Mission for Vision at info@missionforvision.org.in

Prepared as on 25th June and may need to be revised according to changes in protocols and guidelines as applicable from State / Central or expert bodies.

Sources

- <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>
- <https://www.aao.org/eye-health/tips-prevention/coronavirus-covid19-eye-infection-pinkeye>
- <https://www.umkelloggeye.org/kellogg-eye-center-coronavirus-update-our-patients-and-visitors>
- Retinopathy of Prematurity Screening Guidelines by the Indian Retinopathy of Prematurity Society



Annexure

Questionnaire for Staff

1. Did you have fever, cough, loss of smell & breathlessness recently?
 - I. Yes
 - II. No
2. Did any of your relative suffer from COVID-19 recently?
 - I. Yes
 - II. No
3. Did you or your relative (with whom you have had contact) travel to any COVID-19 affected areas / countries recently?
 - I. Yes
 - II. No
4. Was your family was quarantined for 14 days by the District health department recently?
 - I. Yes
 - II. No
5. Did you sterilise all the equipment which will be used for screening?
 - I. Yes
 - II. No

Questionnaire for Mother/Parent of Neonate

1. Did you have fever, cough, loss of smell & breathlessness recently?
 - I. Yes
 - II. No
2. Did any of your relative suffer from COVID-19 recently?
 - I. Yes
 - II. No
3. Did you or your relative (with whom you have had contact) travel to any COVID-19 affected areas / countries recently?
 - I. Yes
 - II. No
4. Was your family quarantined for 14 days by the District health department recently?
 - I. Yes
 - II. No





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