**Trichiasis surgery: Keeping health workers and patients safe**

**Proposed Standard Operating Procedures for Resuming Trichiasis Programme Activities**

It is expected that many ministries of health or health services are currently developing guidelines for routine health service delivery post COVID-19. These guidelines for resuming trichiasis programme activities post COVID-19 period are not to replace existing ones but are to be viewed as complementary.

The current recommendation by WHO is to postpone any community outreach and TT case searches until routine health services resume. Prior to restarting case finding and outreach activities a risk assessment of the district should be undertaken. This is available from your grant manager ‘’ *nCOV-surgery\_RAtool-2020\_v6.xlsx’’* .

In the coming month it is planned to provide members of the outreach team a laminated infographic showing the steps for COVID-19 protection and revised approaches to outreach management.

In some countries, health seeking behaviour has changed considerably with fewer people accessing health services for fear of contracting the disease in health facilities.  The amount of health education on COVID-19 has largely been insufficient and many people do not understand the (basics of) disease.  It may be useful to have some basic infographics and health education at the outreach sites about the disease that can educate the community and ensure that those who have fears coming to health facilities for TT surgery are reassured.

**Microplanning**

Microplanning must be undertaken as a first step. Trichiasis surgery teams should ensure they have contacts of the local or regional COVID-19 team in the area. All consumables required for undertaking case finding and outreach should be available before starting case finding. Part of the planning is to make adequate arrangements for crowd control and limiting the number of people attending an outreach. Selection of outreach sites may need to consider whether the proposed health facilities have been designated as COVID-19 testing or isolation sites. The surgical team should be limited to one surgeon, an assistant and one person in-charge of registration/counseling. As much as possible, plans should be made to stagger the number of suspected trichiasis patients attending the outreach. While at the outreach site, demarcation using stones or markers on the ground should be arranged for physical distancing. Plans to provide hand washing facilities for patients near the registration point should be in place.

**Re-training**

The possibility of COVID-19 transmission during surgery means that trichiasis surgeons should use a face shield in addition to a face mask while doing surgery. No surgeon should conduct surgery on a patient until he/she has practiced with a face shield using HEAD START. As wearing a face shield is a change to their routine, the programme will need to conduct a “re-training” during which surgeons practice surgery using the HEAD START mannequin while wearing both a face mask and face shield. If problems with use of the shield are identified, they need to be resolved to the supervisor’s satisfaction.

**Case finding**

*Training of case finders*

Training of case finders should be organized in a manner that physical distancing is maintained. This will require that the number of persons to be trained per session is reduced with an implication for planning many training sessions in a district/ward. The training venue should be cleaned and sanitized before use each day. Arrangements should be in place to provide trained case finders with face masks (both for the training and subsequent use). Locally made cloth face masks can be used. One face mask can be worn per day, washed in the evening, and left to dry the next day; this would mean that each case finder should have two to three face masks. Hand sanitizers should also be provided as there is no guarantee of getting water while moving from house to house. The training curriculum should be expanded to include training on wearing of face mask and appropriate use of the hand sanitizer. Case finders need to be educated on the symptoms of COVID-19 as they will avoid examining such persons. Therefore, the duration and number of sessions of case finder training per district may have to increase. Case finders should be provided with a laminated sheet including COVID-19 related protections and messaging (under development) as well as an infographic on how to conduct case finding.

*During case finding*

As case finders undertake case finding, house to house (or in courtyards) examination of suspected persons must be emphasized. Mass mobilization must be never be undertaken. Case finders must ensure they carry their register, face masks and hand sanitizers. Face masks must be worn throughout the duration of case finding with the mouth and nose properly covered. At each household/courtyard, the head of the household should be asked if there is anyone with symptoms of COVID-19. Such persons should not be examined but registered on a separate sheet and the trichiasis coordinator informed. As much as possible, all examinations should be done in front of the house, not inside, except if there are persons who cannot walk. In those cases, the case finder can enter the house for a brief period to examine that person. The case finders should disinfect their hands immediately after examining each person before writing or doing anything else. Where suspected trichiasis persons are found, they should be listed on the register and told when and where to report for examination and management. Case finders will still be requested to accompany patients to the outreach site as this activity has been shown to be critical to uptake. That said, it will be important to limit contact. Physical distancing guidelines will be promoted. If it is impractical for case finders to accompany suspected trichiasis cases to the outreach, each suspected case should be provided with a referral note, including the patient name, age, sex, eye(s) suspected of having trichiasis, and the case finder name.

At the end of case finding in a community, the case finder should inform the coordinator the total number of suspected cases found and whether they will accompany cases or not. If they are not accompanying cases, case finders will be requested to send a snapshot of the register to the coordinator. The case finder will also inform the coordinator the number of people that require transportation to the outreach site for arrangements to be made for that. The coordinator, in deciding the number of days to be spent by the outreach team at each outreach, should limit the attendance to the outreach to 40-50 suspected persons per day.

**Outreach**

*Registration and examination*

There should be provision for triaging before patients are registered. The surgeon (wearing a face shield, face mask, and gloves) should be the first to examine all suspected persons arriving at the camp and deciding those with trichiasis who should be provided with a face mask before proceeding to the registration desk while those without trichiasis should be marked on the case finder register and counselled/referred before leaving the outreach site without delay to avoid overcrowding. Proper spacing (at least 2 meters) must be provided between persons waiting to be examined or registered, this can be marked off on the ground using rocks or tapes. A hand washing station, with running water and soap, should be adjacent to the registration/triage area.

At registration, a safe distance (2m) should be maintained between patients and interaction time with the outreach team should be limited; this will ensure that patients do not crowd around the registration area. Health personnel should limit interaction with patients and must wear at least a face mask. All patients registered should be directed to a waiting area where the assistant should prepare them for surgery, provide counselling, and obtain the appropriate consent. Detailed examination and filling of the pre-op examination details can be done on the operation table by the surgeon just before surgery commences.

*Surgery*

Surgery needs to be done by the surgeon who examined the patient on the same day, with the help of just one assistant who will help with moving the patient and cleaning the instruments. This is to limit the number of health care personnel that come into contact with patients.

The surgeon and assistant should wear a water-resistant gown, face shields over their loupes, masks and gloves. Patients should be wearing a face mask during surgery. All usual steps of maintaining sterility much be observed including the use of 5% Povidone iodine after anaesthetizing the conjunctiva and shortly before commencing surgery. There should be no conversation between the surgeon and the patient or the assistant except that necessary between the surgeon and assistant for the surgery. Minimal time should be spent on each patient. The theatre room should be well ventilated (avoid the use of air conditioners or fans). Once surgery is completed, the table/bed and face shield should be disinfected with either 70% alcohol or 1% hypochlorite as appropriate. PPE (except the face shield which can be disinfected and reused) should be changed after each patient.

*First day follow up*

Sleeping over at the health facility should be discouraged if patients are coming from nearby. Where patients need to stay in hospital after surgery for the first postop day review, one patient should be kept per room or 2-3 meter distance between beds should be maintained in open wards. Each patient should be provided with a face mask and hand washing facilities should be available for patients to use on the ward. The surgeon should wear a face mask and face shield, a pair of gloves when examining the eye. Examination, provision of postop medications and instructions should be done in as minimal time as possible. Once interaction is over, the surgeon should remove and discard gloves and ensure hands are washed with soap and water. Patients should wash their hands with soap and water before leaving the health facility. At the end of each outreach day (or the morning of each outreach day) it is advisable for the outreach team members to check their temperatures and, if needed, discontinue their work.

**Training of trichiasis surgeons**

Trichiasis surgeon training should follow the normal guidelines provided in the WHO manual including the use of mannequins. The only modification here will be to limit the number of trainees per training session so that physical distancing is observed. Review of standard COVID-19 infection prevention strategies will also be included in the training. Prior screening of patients needs to be done before training is commenced and patient appointments for surgery during training deliberately staggered. It is envisaged that not more than four (4) surgeons can be trained at a time.

**Supervision of trichiasis surgeons**

The supervision of surgeons should be undertaken as before. However, supervisors need to wear face masks and wash their hands with soap and water if they examine patients. Supervisors must ensure physical distancing is maintained and hand washing facilities are provided at outreach sites. Supervisors should also ensure trichiasis surgery teams wear appropriate personal protective equipment. If supervisors undertake surgery, they must follow surgery guidelines, noted above.

As the process of resuming trichiasis programme activities requires changes to the training of case finders and to the management of the outreach, it is recommended that a supervisor attend the first outreach for each surgeon to ensure that the quality control measures described above are enforced and to identify areas requiring further action.

**Surgeon audits**

Surgeon audits are usually done by moving from house to house to examine patients. Where patients are mobilized to one spot, there are unlikely to be many patients in one location. However, physical distancing must be observed, and auditors must wear face masks and sanitize their hands after each patient examination.

**TTA field visits (and QSAT)**

Technical support to programmes should resume once travel restrictions are lifted. TTAs while in the field, need to wear face masks and wash their hands with soap and water if they examine patients. They should ensure that physical distancing is maintained, and hand washing facilities are provided at outreach sites and surgeons with their assistants wear appropriate personal protective equipment.