

## Recommended Guidelines for Corneal Surgery

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In addition to the general guidelines for ophthalmic surgery prepared by the Philippine Academy of Ophthalmology (PAO), the Philippine Cornea Society (PCS) is providing specific guidelines and considerations for some specific corneal surgeries as per request of the PAO.

### I. Corneal transplant surgery

#### A. Patient Issues

##### 1. Risk stratification/prioritization protocol

###### a. High priority/risk

- Patients who need immediate tectonic or therapeutic penetrating keratoplasty for corneal perforation/ impending corneal perforation from trauma, infection, etc. (tectonic penetrating keratoplasty); or for corneal infections unresponsive to medical or other therapies (therapeutic penetrating keratoplasty)

###### b. Medium priority/risk

- Pediatric patients who may become amblyopic if corneal surgery is delayed for a long period of time
- Patients with bilateral corneal blindness and has limited access to a caregiver or support system.

###### c. Lower priority/risk

- Elective surgery in a patient with monocular corneal blindness

##### 2. Delivery of safe high-quality care

###### a. Intra-operative precaution

- i. The type of anesthesia is significant factor to consider.

- General Anesthesia – This is an aerosol-generating procedure (AGP). Proper level of personal protective equipment (PPE) should be used and necessary precautions observed in the operating room.

- Local anesthesia – This is a non-AGP, and a lower level of PPE may be used if the patient is not suspected to have COVID-19

- ii. Although no evidence exists in detecting the virus in corneal tissue, careful disposal of the removed host corneal tissue should be performed. The host corneal tissue should be immediately placed in a sealed container for proper disposal as infectious waste or for culture and sensitivity testing.

###### b. Post-operative care

- For penetrating and anterior lamellar keratoplasty, accurate intraocular pressure (IOP) measurements should ideally be performed by tonopen or Mackay-Marg electronic applanation tonometer. A new tonometer tip cover should be used for each patient and disposed as

infectious waste after the IOP is measured. Non-contact air puff tonometers should be used with caution since it may be aerosol generating.<sup>2,3</sup>

- B. Handling of bandage contact lenses for collagen cross-linking, photorefractive keratectomy (PRK), phototherapeutic keratectomy (PTK), laser epithelial keratomileusis (Lasek), corneal abrasion/epithelial defect, etc.

As there have been reports of isolating the coronavirus in conjunctival swabs<sup>4</sup>, handling bandage contact lenses using bare hands should be avoided. It is recommended to use sterile instruments (i.e., McPherson or jeweller's forceps), WeckCel sponges, or cotton tip applicators to apply and remove the contact lens. Proper disinfection of the instrument should be done or disposal of single-use sponge/cotton tip applicator as infectious waste.

#### REFERENCES

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4. Zhou Y, Duan C, Zeng Y, *et al*. Ocular Findings and Proportion with Conjunctival SARS-COV-2 in COVID-19 Patients. *Ophthalmology*. 2020;127(7):982-3.