Recommendations from the Canadian Neuro-Ophthalmology Society regarding Neuro-Ophthalmology Care During the COVID-19 Pandemic
May 21, 2020

Like all physicians, our lives over the past several weeks have been thrust off-course by COVID-19 into a strange and unexpected area, but our overall path remains the same. We now live in a new normal, but at some point we will have to gradually integrate back into our former clinical activities, realizing that they are not going to be the same as in the pre-COVID 19 era. Our first objective is the safety of our healthcare workers and our patients. What should our neuro-ophthalmology practice look like as we cautiously ramp up activities?

Neuro-ophthalmologists rely heavily on history taking, visual fields, lab tests, and neuroimaging, all of which can be interpreted and discussed remotely, making it possible for virtual care to continue. The following guidelines take this into account, but it should also be recognized that the potential for COVID-19 transmission differs greatly in various regions of the country, depending on prevalence of patients who are carriers, availability of effective personal protective equipment (PPE), and the local clinical environment. As a result, decisions to see patients face-to-face or to expand the clinical neuro-ophthalmology case mix beyond urgent or semi-urgent patients may be appropriate in certain areas of the country as the pandemic resolves, but these would be local decisions and fluid in nature, depending on the evolution of the disease epidemiology.

Suggested guidelines:

- **CLINICAL GUIDELINES**
  - **Clinic visits:** Specific features of face-to-face appointments in the clinic should follow the guidelines associated with ophthalmology in general, as described in the COS/ACUPO guidelines https://www.cosprc.ca/resource/guidelines-for-ophthalmic-care/

  - **Triage of neuro-ophthalmology patients**
    - Only urgent or semi-urgent patients should be considered for face-to-face assessments, with the decision on degree of urgency based on the clinical judgment of the neuro-ophthalmologist.
    - In most cases, the assessments can be done completely or in part by telemedicine.
    - It can be difficult to determine a priori which diseases must be seen face-to-face because it will depend strongly on what previous assessments were done, what can be obtained from telemedicine, and what diagnostic procedures are needed.
    - Examples of who should be strongly considered for deferral or telemedicine assessment include:
      - Patients who are immunocompromised
      - Patients with advanced age or who live with someone of advanced age
      - Follow-up patients who have remained stable
      - Patients with non-urgent clinical situations.
      - Patients with efferent problem or afferent problems for which there is already a partial assessment sufficient for management (e.g. fundus photographs, OCT, visual fields, neuroimaging, or examination by a colleague)
      - Patients who are not able to come to the hospital for other reasons such as living far away or where the person doing the transport is themselves at high risk for COVID-19 complications
  - **Telemedicine for neuro-ophthalmology**
    - Telemedicine has opened a new door and opportunity, and may remain a new part of our practice. A telemedicine appointment can precede or replace the face-to-face appointment and will allow acquisition of a complete history (by telephone) and of many examination items (if Zoom or other software are available).
    - A telemedicine examination can be used to assess motility, lid assessment, pupils, and even confrontation fields. Visual acuity can be roughly assessed with specially made forms. If deemed possible, safe, and necessary, diagnostic testing can also precede or replace the physical examination, and can include automated perimetry, OCT, and fundus photography.
    - Only those parts of the examination which (1) cannot be done through telemedicine; (2) are necessary for urgent management; and (3) for which the risks of COVID-19 exposure in the clinic are outweighed by the clinical situation should be done face-to-face. Examples include fundus examination, assessment of intraocular inflammation, and intraocular pressure measurements.

- **Diagnostic testing**
    - The same recommendations for social distancing and equipment cleaning apply as with all clinic visits.
    - Testing should only be done when necessary and cannot be replaced by telemedicine care.
- **Neurosurgical or other referrals**
    - In some cases there may be difficulty in obtaining timely neurosurgical or other interventions because of limitations on non-urgent surgical time or other constraints.
    - Close communication and cooperation with colleagues, centered on balancing risks of delay vs. risks of morbidity, will help optimize overall care.
- **Adult Strabismus surgery**
    - This is elective surgery and should be deferred, subject to reassessment as the pandemic situation resolves.

- **ACADEMIC GUIDELINES (where applicable)**
    - Teaching such as professor rounds, grand rounds and lecture series should proceed virtually at this time, subject to local, university, and health authority guidelines.
    - The resident on the block/rotation should be integrated as part of the team and included in virtual appointments when possible.