

What will change in our practice after Covid-19? or *The day after Covid-19*

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« *Forecasting is difficult especially when it concerns the future* » Pierre Dac (1893-1975),
Famous French humorist

What traces will we keep in our personal lives and our practices after the passage of the SARS-CoV-2 coronavirus? The current pandemic has invaded the planet with unimaginable lightning since the so-called Spanish flu, and many of us will be collectively and individually long struck by these images of an inevitable epidemic, frozen societies and overworked hospitals and everywhere so many dead persons. Probably, our way of looking at others will also change profoundly. Accustomed until now to a certain carelessness, to more or less close human contacts, to agree to catch colds and flu, to the point of judging useless to vaccinate us, to examine our patients across the slit lamp, shaking their hands kindly when they enter our offices, we, as eye care practitioners, were forever touched one day in February 2020 by the death of Doctor Li Wenliang, aged 34, who had been one of the first to identify the disease in Wuhan, the first to denounce it publicly. Dr. Li was also an ophthalmologist and this loss shows us that our practice needs to be radically changed.

The hygiene rules that we already imposed on ourselves, hydro-alcoholic solutions, disinfectant wipes, will be more essential than ever, and will be as much necessary to protect us as they will be demanded by patients.

Their own look will certainly change too. Once out of their confinement they will necessarily see us as potential vectors. Full waiting rooms will no longer be acceptable, with each suspecting the specter of the virus in their neighbor. Currently, patients with eye diseases no longer move, they no longer come to the emergency units, they no longer come to be treated, which will also be one of our concerns the day after, when all the poorly treated will massively arrive with outdated AMD or irreversible retinal detachments.

How should we adapt to caring for an elderly population who will have been protected by confinement, who will therefore be free from the virus but who will at some point have to go out ... without any protection? Masks for everyone? Yes, but for how long? We will undoubtedly also have to adapt our practices: a mechanical barrier on our slit lamps will reassure us, as will the hydro-alcoholic solutions and the wipes, we will space the seats in our waiting rooms, will try to go even more quickly. But can mass consultations, conventional examinations be carried out in the same way as before, when our eyes full of mutual suspicion meet?

Proponents of artificial intelligence and telemedicine will rightly see it as a great opportunity to advance medicine and its practices. This disease and the deep mark it will leave in human relations will be an opportunity to review our healthcare organization: moving the minimum number of people, especially in the elderly population, will be a real issue.

This will allow the development, among other things, of the large-scale practice of retinography in all care structures, the establishment of refraction self-assessment systems, with tele-expertise, and self-learning algorithms for detecting diseases. Patient monitoring can also be done remotely, using an expert who can give an opinion from afar and decide whether the patient needs to come to a specialized environment or not. It will still be necessary to recruit front-line technicians for this minimalist proximity care.

Better yet, sophisticated software will allow patients to describe their history and symptoms on online questionnaires and computer robots to formalize a sort of virtual patient who will then be confronted with clinical reality, allowing the self-learning system to improve its reliability.

Useless indeed to bring people for stable pathologies which can be evaluated remotely or benign diagnosable diseases without thorough examination. Artificial intelligence can be based on a double network of increasingly sophisticated and precise questionnaires and retinographs deployed in all healthcare centers: a technician, a photo, artificial intelligence that will spot a disorder of the anterior segment, identify a retinal or optic nerve disease, and will even make a reliable diagnosis of cardiovascular disease or early stage of Alzheimer disease! The goal will be to keep those who can be away, and to bring only those who need it for specialist advice, laser treatment, surgery or intravitreal injection.

We must also prepare for tomorrow, the period when untreated patients will come with their anxieties and their pathologies, the day when the patients, saved thanks to the selflessness of our colleagues and first-line caregivers, will come out of intensive care and will come to consult for ocular pathologies left in the background: ulcerated or even infected corneas, thromboembolic or multisystem inflammatory diseases, neuropathies and other uveitis which we do not expect but which we must expect.

In a certain way all the better if thanks to this terrible experience, we become better on the technical level, more efficient, benefiting from new tools, and better protected because more informed.