Ophthalmology in the COVID-19 pandemic

The novel coronavirus pandemic has affected the whole world and forced all of us to think of new ways to manage our day to day personal as well as professional life.

I am not going to talk about the clinical guidelines on personal protective equipment (PPE) or how to manage specific clinics during this pandemic, but I am going to share with you some of my reflections on the situation at the eye hospital in Manchester where I work.

These are very strange and challenging times. It has affected not only our day to day practice but also the way with think about our service and how we approach our work both physically and mentally. This has given me personally some insights into my own self and into some colleagues' and patients' personalities.

Perhaps in ophthalmology we are not on the 'frontline' of all this as our critical care colleagues are, but we have several important roles that we can play during this.

1. We have sight-saving skill set that no one else has. This crisis will end, sooner or later, and we don't want to end with a large cohort of people who are still alive but blinded because of the lack of care. It is, however, very important at the moment to find the right balance between running a full service, risking more spread of the virus and risk to staff and patients, and complete shut down which could lead to widespread vision loss.
2. Many of us have been asked to work and perform outside our comfort zone or below our current 'pay rate', either in ophthalmology in general or further afield. In the eye hospital for example, we have redeployed all our trainees and some of our non-training grade colleagues (SAS group), as well as some consultant colleagues, into general medical practice.

   The impact of these changes on the services at the eye hospital have been massive, we had to (as I am sure have the majority of other ophthalmic units) risk stratify patients into high, medium and low risk categories (imagine doing that for neuro-ophthalmology!) The whole electronic patient record (EPR) system has to step up and be modified to accommodate all these changes and provide remote access which is safe and secure. We had to conduct telephone consultations and run teleconference meetings in order to try access patients' stability and decide when to see them.

The loss of our trainees meant that consultants are doing first on-calls and managing things outside their subspecialty. This has brought us closer as a group. Colleagues shared and discussed general management guidelines on all emergency presentations, and offers of help and advice poured in from all, because suddenly a neuro-ophthalmologist (me) needs to manage an angle closure glaucoma patient or a corneal ulcer patient in the middle of the night or during a weekend!

On the other side, people are worried or even scared for various and valid reasons, such as the prevalence and aggressiveness of the disease, the ability to screen and identify COVID-19 positive patients and availability of PPE kit for the eye emergency clinic, outpatients and surgical procedures.

Table 1: Examples of risk stratification in neuro-ophthalmology and ocular motility.

Risk level	High	Moderate	Low
Examples	Acute loss of vision	Stable myasthenia gravis (MG)	Known squint
	Recent optic neuritis	Low grade IIH	Stable patient on monitoring for visual functions
	Recent idiopathic intracranial hypertension (IIH) with significant optic nerve swelling		
	New onset diplopia		

Figure 1: Photoshoped image illustrating how a patient with 4th nerve palsy sees his television set suggesting vertical and torsional diplopia. Courtesy of patient AJW and our Orthoptist Lis Parry.

The emergence of the need to assess COVID-19 positive patients on the wards in cases with fungal infections to rule out endogenous endophthalmitis was another daunting and challenging situation for our services. I understand each person will have a valid point of view, but for me personally, I feel for our colleagues on the frontline. They are the ones that should be applauded and they are the ones that should be protected if there is shortage of gear.

We are lucky at the eye hospital in Manchester to have such a diverse group of colleagues and skill sets. This has helped with sharing the workload, minimising the effect on the service and keeping patients safe as much as possible.

It is also important to think about the future once this peak passes over (ophthalmology exit strategy). In Manchester, we have started to think about the recovery phase and we understand that we will have a massive backlog added to our already stretched services, so plans are starting to emerge on how to manage the delayed cases going forward. This has also given us some insights into our previous service and how to create new ways of managing demand with our available capacity, not only now but also in the future. I think ophthalmology and the NHS after COVID-19 will be different from what it used to be before this pandemic.

Finally, I wanted to share with you the above photo sent to us by one of our 4th nerve palsy patients describing his diplopia. He did this using photoshop and was (as all patients) very grateful to us for taking the time to talk to him and check that he is fine. It was a great way our patient thought of to show his double vision and we asked him to send us serial photos to see if he feels the images are getting closer or farther apart and whether that could be used as a (subjective) monitoring tool in some patients!

Stay safe!

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