The real world implementation of the 2020 Hydroxychloroquine (HCQ) screening programme in a large London teaching hospital - are we getting it right four years on?

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Introduction:

The Royal College of Ophthalmology introduced the latest Hydroxychloroquine and Chloroquine retinopathy screening guidance in 2020, streamlining testing to spectral-domain optical coherence tomography (SD-OCT) and widefield fundus autofluorescence imaging (FAF) only, and removed the need for baseline testing. Screening need not commence until 5 years of treatment, unless deemed high risk, and the use of virtual clinics or community screening is encouraged.

We looked at how this guidance had been implemented across our trust, and whether the guidance is being adhered to. Just like most trusts across the UK, medical retina has capacity issues, and this latest guidance provides a clear framework to reduce the number of patients needing screening, reduces the burden of tests they require each visit and effectively discourages face to face appointments. The guidance is an evidenced based road map to reducing the burden of HCQ screening, and thus to not stick to it could be viewed as an 'own goal'.

Method

We retrospectively reviewed the medisoft data of the last 30 patients seen within the trust that had hydroxychloroquine listed in their medications. We then went on to excluded those attending for anything but screening, 10 were excluded: 3 cataract, 2 had no referral and did not attend, 2 corneal, 1 oculoplastics,1 uveitis and 1 squint.

Of those attending for screening, we looked at whether the correct tests were performed, whether they met criteria to be screened and where the referral originated.

Results

Four patients had been taking HCQ for less than 5 years, and none of these had had risk factors stipulated in the guidance to suggest they should be screened earlier. Therefore 20% we inappropriately seen in clinic for screening.

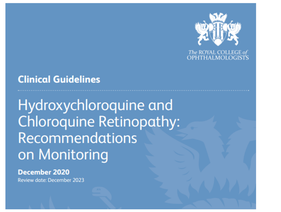
Of the 20 we screened, 14 had both OCT and FAF, so only 70% had the correct testing. Of the 16 correctly in screening, 13 had both OCT and FAF, meaning 81% of those who meet screening criteria had the correct screening tests.

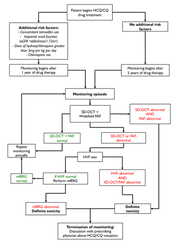
The referral sources were: 35% rheumatology, 30% GP, 10% trust eye A+E, 10% optometrist, 10% haematologist, and 5% dermatologists.

Just 13% were seen in a diagnostic / virtual clinic, so 87% were seen in a face to face medical retina clinic.

RCOphth Screening Guidelines[1]

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2.2 Monitoring Criteria

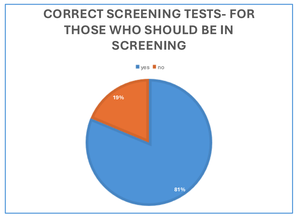
Recommendation	Grade of evidence
All individuals who have taken hydroxychloroquine for greater than five years should receive annual monitoring for retinopathy	B
All individuals who have taken chloroquine for greater than one year should receive annual monitoring for retinopathy.	B
All individuals taking hydroxychloroquine who have additional risk factors for retinal toxicity may be monitored annually after the initiation of therapy. This is to be decided by the prescribing physician should additional risk factors be present.	GPP
It is the responsibility of the prescribing physician (as per GMC guidelines) to refer patients eligible for monitoring to the local hospital eye service.	GPP
The referring clinician should be encouraged to complete a standardised referral proforma specifying the key clinical details relevant to monitoring for retinal toxicity. This will allow a determination of risk toxicity and interpretation of test results.	GPP

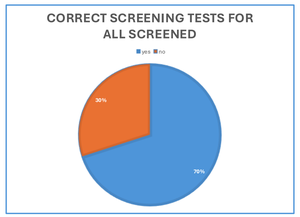
2.3 Monitoring Protocol: Tests

The following is a standardised protocol for all patients.

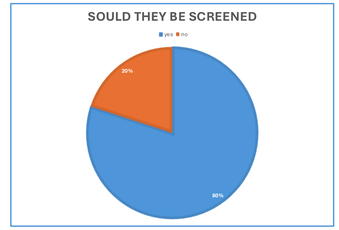
Recommendation	Grade of evidence
In addition to oral communication, written information about hydroxychloroquine retinopathy and monitoring for hydroxychloroquine retinopathy should be given to all patients.	GPP
All patients should undergo both spectral domain optical coherence tomography (SD- OCT) and fundus autofluorescence (FAF), widefield if available.	B
Patients with abnormalities on either SD-OCT or fundus autofluorescence imaging should undergo automated visual field testing using either a 10-2 or 30-2 protocol depending on the location of the structural abnormality. Visual field testing is likely to be undertaken at a separate visit if dilating eye drops are used for imaging, or in the setting of virtual clinics when images are reviewed after the patient visit.	C
Patients with confirmed structural abnormalities on SD-OCT or FAF who do not demonstrate an anatomically consistent visual field defect on repeated testing should undergo multifocal electroretinography.	C

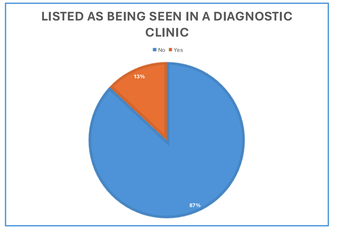
Some patients at risk of hydroxychloroquine retinopathy may not be able to undertake the required

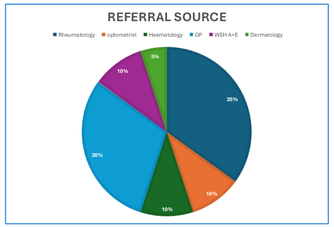




References:
1. Royal College of Ophthalmologists Hydroxychloroquine and Chloroquine Retinopathy: Recommendations on monitoring 2020







Conclusion

The adherence to the RCOphth 2020 HCQ guidance was suboptimal in our trust, in particular we were screening patients too early, not with the correct tests and nearly 90% in a face-to-face setting.

The issue of seeing patients too early is a combination of incorrect referrals, and incorrect triage. Education to both of these groups have been implemented and will need to be periodically reviewed.

Funneling all HCQ patients into a diagnostic clinic, allows for a clear testing protocol, and thus full compliance with guidance. This also reduces the time burden on patients of face-to-face appointments and frees capacity in overburdened medical retina clinics.

We are surely not the only trust who could benefit from formally reviewing our implementation of the guidance as a mechanism to optimise patient care, with the secondary benefit of reducing the need for precious face-to-face medical retina clinic appointments.