

Introduction

With the advent of the COVID-19 public health emergency in 2020 the need to limit face-to-face healthcare services became more important¹. Telemedicine is known to improve access to healthcare services¹ and over recent years it has become increasingly apparent that the use of clinical images when referrals are made to ophthalmic services improves triage, reduces hospital capacity² and reduces waiting times³.

Aim

To reduce unnecessary face-to-face clinic appointments within NHS Fife by implementing the use of high quality digital images in oculoplastic referrals sent by primary care practitioners.

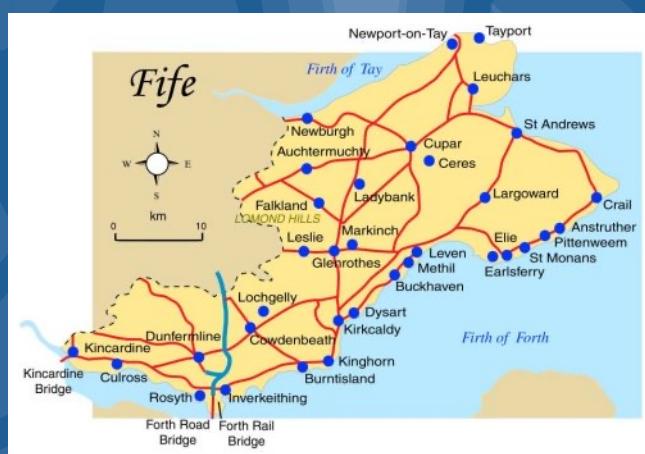


Figure 1. Map of Fife

Methods

An audit was carried out on all patients seen in oculoplastic outpatient clinics in 2019. This showed that of the 441 new patients appointed, 11% had an image attached to the referral. The pathology or lesion was not discernible in 13 of these images and therefore 8% of oculoplastic referrals included a useful photograph. Of the patients seen with an image 38% were discharged compared with 47% of those seen, where no image was included. In the group with good quality images 77% were listed for surgery compared with 53% of those in the 'without image group'. In light of these findings four optometry practices across Fife were provided with Topcon high resolution slit-lamp cameras in May 2021 as part of the Plastic Assessment in the Community (PAC) project. All new oculoplastic referrals, unless considered life or vision threatening, must now include an image. If the practitioner is unable to provide a good quality image the patient is referred on to a PAC Optometrist who takes a photograph of the lesion and sends it back to hospital eye services (HES) via NHSmail.



Figure 2. Topcon Slit-lamp camera

Results

Data collected since the implementation of the PAC cameras shows that 116 oculoplastic referrals were received between 07/05/21 and 24/08/21. Of these, 58 patients were deemed appropriate for referral to a local PAC optometrist and we currently have received images for 62% of this group.

Analysis reveals:

- 55.5% were discharged without the requirement for clinic review
- 25% were listed directly for surgery
- 19.5% were appointed for clinical assessment



Figure 3. Prospective 2021 Data

Conclusion

By implementing the PAC project the use of high quality digital images with referral to the oculoplastic service in Fife has increased. This has resulted in a reduction in unnecessary face-to-face clinic appointments by increasing the rate of patients discharged without the need for an appointment and increasing the number of patients listed directly for surgery.

The use of high quality images has enhanced our ability to make remote clinical decisions. Figures 4a and 4b were both referred as 'cystic lid lesions'. However, 3a demonstrates a basal cell carcinoma which was listed directly for surgical excision, and 3b shows an insignificant papilloma that was discharged without the need for review.

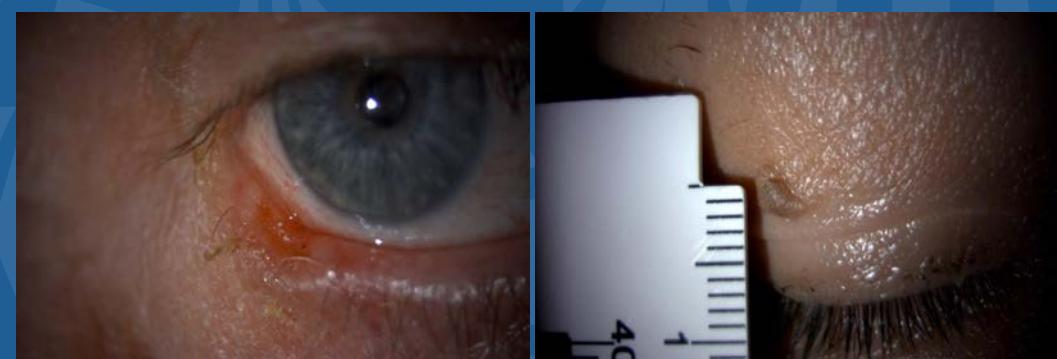


Figure 4a. Lower lid basal cell carcinoma

Figure 4b. Upper lid papilloma

Further analysis on the accuracy of diagnosis, effect on waiting times and patient experience are required to fully assess the impact of the PAC project. As a particularly visual specialty⁴ the scope of telemedicine within the oculoplastic service has the potential to revolutionise our current practice, which is especially pertinent in the wake of the COVID-19 pandemic.