Eye (2021) 35:2642–2643
https://doi.org/10.1038/s41433-020-01162-w

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CORRESPONDENCE

Comment on: 'What is the best way to measure intraocular pressure (IOP) in a virtual clinic?'

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Received: 15 July 2020 / Revised: 3 August 2020 / Accepted: 20 August 2020 / Published online: 2 September 2020
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To the Editor:

We read with interest Mostafa et al.'s article on the use of the ocular response analyser in virtual glaucoma clinics (VGC) and would like to share our data for patients attending an iCare-based VGC at the Royal Eye Infirmary, Plymouth [1].

The notes of 100 patients attending the VGC were retrospectively reviewed, identifying 20 patients who were recalled to a traditional, doctor-led clinic without change to treatment. Thirty-eight eyes were used to compare IOP with iCare at the VGC and GAT at their follow-up in a mean of 120.91 days (SD = 105.32).

The mean IOP was 16.24 mmHg (SD = 3.66) with iCare and 15.82 mmHg (SD = 5.16) with GAT. This suggests that iCare is a reliable method to measure IOP. However, as Figs. 1 and 2 demonstrate, although iCare did not consistently over or under measure IOP, there were significant differences in a number of eyes.

The largest difference (eye 23) measured 24 mmHg with iCare and 11 mmHg with GAT. In this scenario a patient would be recalled to clinic, but it is more concerning where patients have a reassuring iCare IOP and might not be identified as unstable. In eye 27 for example, the IOP was 16 mmHg with iCare but 26 mmHg with GAT.

Overall, our experience with an iCare-based service has been positive with encouraging patient feedback and outcomes [2]. In this study, 28% of VGC patients were identified as stable and discharged to community schemes with just 4% referred back with possible progression within a year. This indicates appropriate identification of stable patients using iCare and accurate retention of unstable patients for hospital-based monitoring.

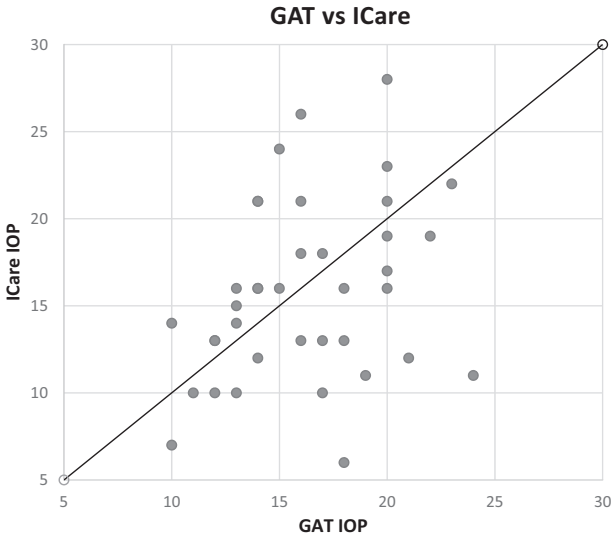

Fig. 1 iCare IOP at VGC against GAT IOP at follow up visit. The line represents identical GAT and iCare measurements.

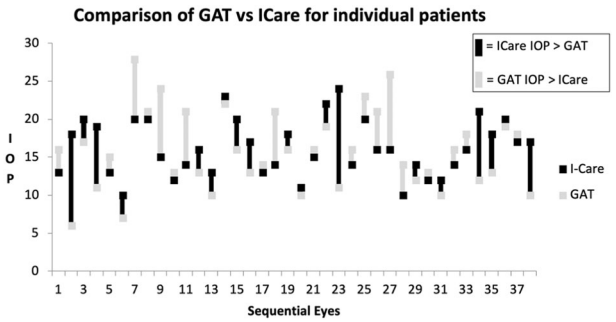

Fig. 2 GAT IOP and iCare IOP in sequential eyes, demonstrating the difference between these values.

The iCare tonometer has been shown to be reliable and has significant benefits in the virtual clinic including ease of use and safety [3]. The differences we found in IOP may have been contributed to by IOP fluctuations, interuser differences uncertain drop compliance or time delay to GAT measurement. However, this study should remind clinicians

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to consider that there may be differences in IOP with iCare and should have a low threshold for face to face review with GAT, particularly when there are signs of progression.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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