Validation of real time technician led triage and same day treatment of nAMD patients in a rapid access clinic

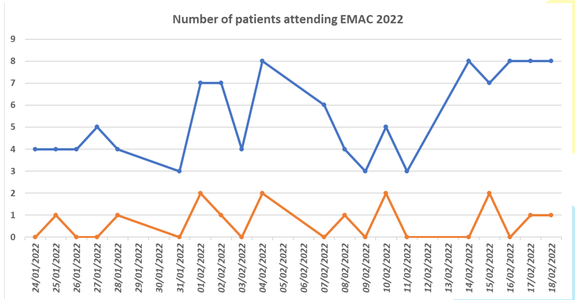
Gonçalo A. Bento; Nattapon Boonarpha; Rosalind Creer; Jane Gray; Tariq Aslam; Romi Chhabra

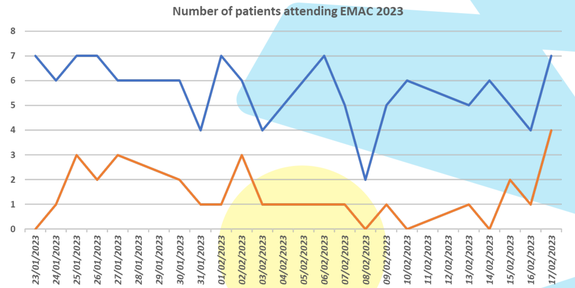
Manchester University NHS Foundation Trust

- **Introduction:** The Emergency Macula Assessment Clinic (EMAC) is a rapid access pathway for patients with urgent macular pathology attending community optometrists and other screening services across Manchester. The clinic is led by specially trained Ophthalmic Science Practitioners (OSP), who are responsible for triaging neovascular AMD (nAMD) and other conditions benefiting of same day intra-vitreal injection (IVI). The purpose of this study is to to validate the clinical decision making of OSPs for patients with nAMD, using multimodal retinal images.

- **Methods**: This study includes a consecutive series of patients referred to EMAC over 2 identical periods in 2022 and 2023. All patients underwent visual acuity assessment as well as diagnostic imaging, including colour fundus photography (CFP), optical coherence tomography (OCT) and OCT-Angiography (OCTA). Images were graded by an OSP at the time of performing the scans using key diagnostic features and classified according to the presence or absence of nAMD or any other macular conditions. The OSP grading results were then compared for concordance against those by a retinal specialist. Patients identified with nAMD were offered same day IVI treatment.

- **Results:** A total of 100 cases were reviewed, with an agreement between OSP and retinal specialist of 96%; Three cases were deemed as having “acceptable diagnosis” and one case of misdiagnosis by the OSP was recorded. 23% of patients seen in EMAC were referred directly from the Ophthalmic Imaging Department to the Macular Treatment Centre with nAMD, myopic choroidal neovascularisation (CNV) or peripapillary CNV. 68% of cases had less urgent macular pathology and 9% of cases were normal. All of the patients (100%) fulfilling criteria for IVI treatment were correctly identified.





- **Conclusion:** High agreement on macular pathology diagnosis was achieved between the OSPs and retinal specialists using multimodal retinal techniques. This has the potential for the development of rapid access clinics and treatment of patients, if triaged by an appropriately trained OSP at the time of image acquisition.