The ROYAL COLLEGE of OPHTHALMOLOGISTS

www.nature.com/eye

CORRESPONDENCE

Quality of inpatient ophthalmology referrals and implications for undergraduate ophthalmology teaching

Eye (2022) 36:2365–2366; https://doi.org/10.1038/s41433-022-02106-2

TO THE EDITOR:

We read with interest the paper by Scantling-Birch et al. [1] Core clinical skills are imparted to medical students during undergraduate training to enable them to function as a junior doctor: triaging, differential diagnoses, referral and management planning of patients. The authors argue that the gradual phasing out of ophthalmology teaching from medical schools has led to decline in the clinical confidence amongst medical students [1].

An ophthalmic consultation should be sought in all cases of visual loss or deterioration. We have conducted an audit of electronic inpatient referrals to the ophthalmology department at King's College Hospital, London. A total of 209 inpatient referrals were received between July 1st and September 30th 2021, of which 76% ($n = 159$) were submitted as urgent (<1 week review). Mean time-to-review was 4.6 ± 9.1 days. Inpatient and clinic visual acuity (VA) was available for 116 (56%) patients. 67% ($n = 139$) referrals were made by recent graduates (Table 1). Additionally, there was a significant mean difference (logMAR −0.17, [95% CI: −0.26 to −0.08]) and low agreement between inpatient and clinic VA measurements (Fig. 1). Wilcoxon statistic indicates the examination VA significantly differed to referral VA ($p = 0.02$). This suggests a lack of clinical confidence in core ophthalmology skills within this group.

Most referral requests originated from medical specialties (62%; $n = 129$), neurosurgery (17%; $n = 35$), and intensive/critical care (14%; $n = 30$). 55% ($n = 115$) offered a differential diagnosis at referral. Most frequent diagnostic categories found on clinic review were ocular findings associated with systemic disease (31%; $n = 50$), of which (23%; $n = 38$) were acute cranial neuropathy, anterior segment pathology (20%; $n = 33$), and 29% ($n = 48$) had no acute ocular pathology.

We acknowledge the constraints of conducting ophthalmological examination in a ward environment, however, reliable assessment is necessary for safe triage. Sight- or life-threatening diseases e.g., hypertension, and stroke can be diagnosed based on an appropriate clinical history and examination [2, 3]. The strategies proposed by the authors and others can be used to improve ophthalmology skills acquisition within the undergraduate medical curricula.

Table 1. Referrals categorised by referrers' years since medical school graduation.

Years post-graduation	Role of referrer	Number of referrals	% of referrals
1–2	Foundation trainees	18	9
2+	Senior house officer	52	25
3+	Junior Clinical Fellow (e.g., FY3)	69	33
6+	Specialist trainee year 4+	23	11
9+	Consultant	10	5
Unknown	Clinical fellow	22	10
Other health professionals	Nurse, Critical care practitioner, Physician Associate, Occupational therapist	15	7

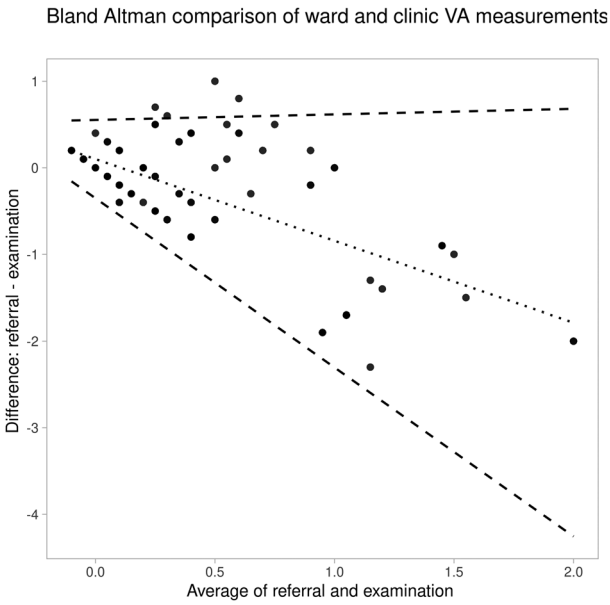

Fig. 1 Bland-Altman comparison of ward and clinic VA measurements. This is a Bland-Altman plot of agreement between visual acuity (logMAR) on referral and examination. The dotted line represents the mean difference and dashed line represents limits of agreement (regression-based). VA visual acuity.

Received: 23 February 2022 Revised: 15 April 2022 Accepted: 10 May 2022
Published online: 16 May 2022

Veronika Lipkova[1,3], Priyanka Asodaria[2,3], Lanxing Fu[1✉] and Eoin Patrick O'Sullivan[1]

[1]King's College Hospital, London, UK. [2]King's College London, London, UK. [3]These authors have contributed equally: Veronika Lipkova, Priyanka Asodaria. ✉email: l.fu@nhs.net

DATA AVAILABILITY

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

REFERENCES

1. Scantling-Birch Y, Naveed H, Tollemache N, Gounder P, Rajak S. Is undergraduate ophthalmology teaching in the United Kingdom still fit for purpose? Eye. 2021;36:343–5.
2. Grewal DS, Gabr H. Inpatient ophthalmology consultations. Med Clin. 2021;105:563–76.
3. Succar T, Grigg J, Beaver HA, Lee AG. Advancing ophthalmology medical student education: international insights and strategies for enhanced teaching. Surv Ophthalmol. 2020;65:263–71.

AUTHOR CONTRIBUTIONS

VL was responsible for designing the audit, writing the correspondence, extracting and analysing data and interpreting results. PA was responsible for writing the correspondence, extracting and analysing data and interpreting results. LF was responsible for analysis and interpretation of data, writing the correspondence and providing feedback on the correspondence. EOS was responsible for designing the audit and providing feedback on the correspondence.

COMPETING INTERESTS

The authors declare no competing interests.

ADDITIONAL INFORMATION

Correspondence and requests for materials should be addressed to Lanxing Fu.

Reprints and permission information is available at http://www.nature.com/reprints

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.