A comparison of research output from UK ophthalmology subspecialties

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Introduction

Research activity in UK ophthalmology has been adversely impacted by the COVID-19 pandemic with 91% of clinicians surveyed reporting an impact on their research activities [1]. Addressing this is important, but it is unclear if recovery strategies should focus on particular sub-specialties.

Seven annual pre-pandemic congresses of the Royal College of Ophthalmologists (RCOphth) have passed since the most recent longitudinal analysis of UK ophthalmic abstract-to-publication rates (APRs) [2]. To provide a contemporary benchmark of research performance across sub-specialties, updated pre-pandemic trends in research outputs, delineated by sub-specialty presentation category, are presented.

Methods

PubMed and Google Scholar were used to search for peer-reviewed publications related to the 1504 abstracts presented at RCOphth annual congresses from 2013-2019. First author, last author and the title of the abstract were used to search for each abstract.

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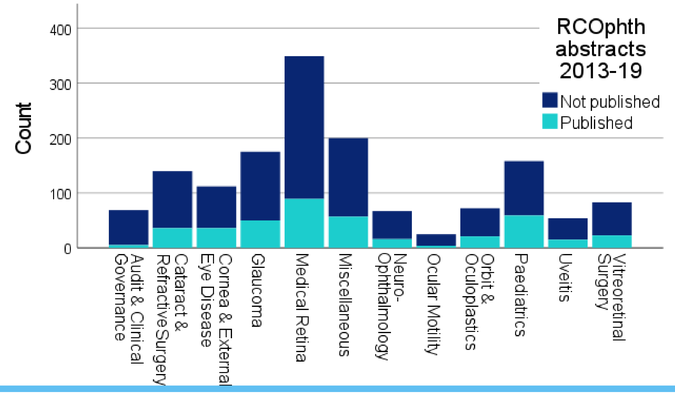


Figure 1: Cumulative abstracts presented at RCOphth congresses 2013-2019 and subsequently published, displayed by subspecialty

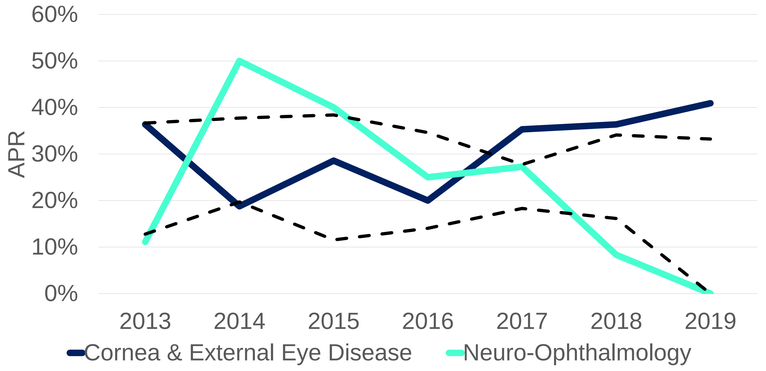


Figure 2: Annual abstract to publication rate (APR) for 2 subspecialties with interquartile range for all 12 abstract categories (dashed)

Results

Across the 7 years, a median 97.5 abstracts were presented within each of the 12 subspecialty categories, ranging from 25 (1.7%) in ocular motility to 349 (23.2%) in medical retina (Fig. 1). The lowest APR (7.2%) was in audit and clinical governance and the highest (37.3%) in paediatrics. Besides ocular motility (16.0%), the remaining 9 subspecialties fell within 5% of the mean APR (27.3%) of all abstracts.

There is a decreasing trend in APR over time in neuro-ophthalmology and an increasing one in cornea (Fig. 2). The median impact factor (IF) of publishing journals across subspecialties was 2.199 (IQR 1.734-3.411).

Conclusions

- Mean APR and IF of congress abstracts are comparable across most subspecialties, except in ocular motility
- There are upward APR trends in corneal research, and downward trends in neuro-ophthalmology
- High performing subspecialties may offer insights for research recovery beyond the COVID-19 pandemic

References: 1. Okwonko ACO et al, Nature Eye. 2016;30(1):1433-1438; 2. Hogg HDJ et al, Eye, ePublished 11/10/2022