

# International comparison of ophthalmology guidelines in the early pandemic: A mixed-methods analysis

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## Introduction

When the potential impact of the COVID-19 pandemic was becoming clear in the early months of 2020, healthcare systems across the globe were forced to decide how to respond, balancing the harm from COVID-19 with the harm caused by reduction in usual healthcare services. We explored international variation in pandemic response strategies in ophthalmology.

## Aim

To review early national ophthalmological guidelines issued as a response to the COVID-19 crisis, in terms of:

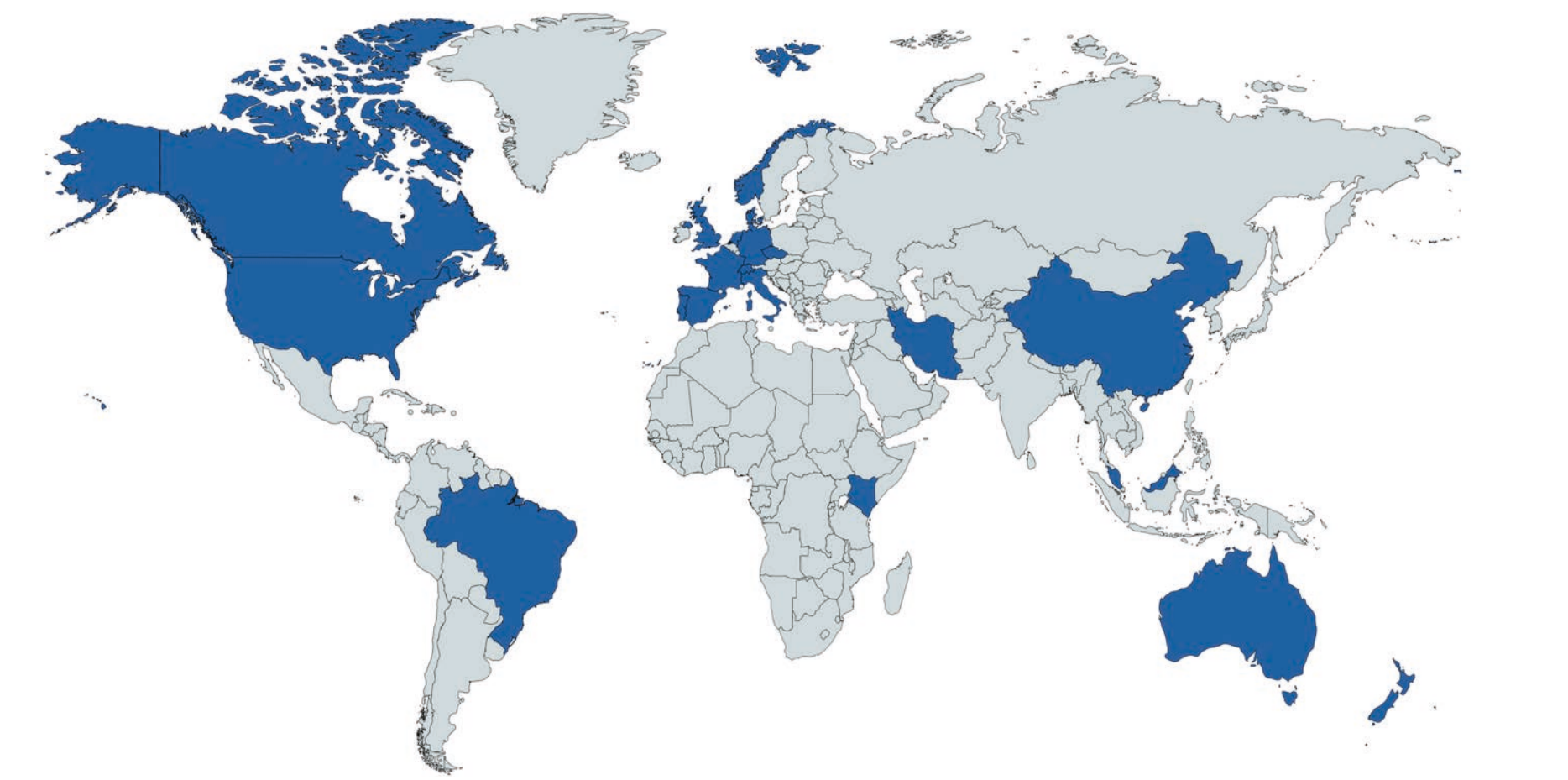
1. Content
2. Quality
3. (in a subset) Change over time.

## Methodology

- The 25 countries with the highest numbers of confirmed COVID-19 cases were identified using publicly available data from the Center for Systems Science and Engineering at Johns Hopkins University<sup>1</sup> on 22/03/20.
- National ophthalmological society guidelines related to COVID-19 and ophthalmology were then collected, where available, during a 72-hour period from 22-24 March 2020.
- Where required, guidelines were translated into English by volunteer translators for analysis.
- Documents were analysed in NVivo 12 software, allowing in-depth thematic analysis using post hoc coding nodes to define guideline themes, and assess inclusion by country.
- Guideline quality was assessed across six domains using the open-source 'AGREE' (Appraisal of Guidelines for Research and Evaluation Instrument) Reporting Checklist.

## Results

Countries whose guidelines were included in analysis are indicated in the map below. A complete summary of findings is available from author on request.



**Key differences were:**

- Which **countries** were flagged as high-risk in travel histories
- **Symptoms** included as suggestive of COVID-19: fever and respiratory symptoms were consistently listed, but others varied, including anosmia, ageusia, conjunctivitis, rhinorrhoea, sore throat, headache, myalgia, fatigue, and diarrhoea and vomiting
- **Ongoing management** for patients at high risk of carrying COVID-19: from self-isolate, to varying degrees of onward referral
- Whether to postpone ophthalmic care of **vulnerable patients**
- **PPE/mask recommendations:** who should wear masks, and which masks.

## Conclusions

Lack of data led to the development of guidance which varied significantly internationally. Now that we have had a year to gather evidence, it is essential that countries follow evidence-based, but context-specific, approaches. Differences in symptoms thought of as indicative of COVID may be due to local strains or population variation in presentation, but if not, may contribute to inconsistent international disease reporting.

## Reference

1. Center for Systems Science and Engineering. COVID-19 Dashboard: Johns Hopkins University; 2020. Available from: <https://coronavirus.jhu.edu/map.html>.