Challenges and Stakeholder Perspectives in the Referral Process for Uveal Melanoma:

A Cross-Sectional Mixed Methods Study

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Introduction

- Choroidal melanocytic lesion (CML): an intraocular melanocytic lesion with malignant potential, can transform into uveal melanoma¹
- Uveal melanoma (UM): most common intraocular cancer in adults¹
- Disease-specific mortality rate of 45% within 15 years of UM diagnosis ²
- Early detection and treatment is essential to improve survival, making timely referrals to ocular oncologists critical

Problem: Inefficiencies in the referral process delay UM treatment,^{3,4} resulting in worse patient outcomes⁵

Delayed UM referral and treatment



Objective

To characterize the perspectives of the various stakeholders involved in the referral process for suspected UM.

Methods

Study design: cross-sectional mixed-methods

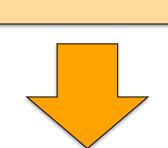
North American stakeholders were surveyed and interviewed about their experiences in the UM referral process.

UM referral stakeholders

Ocular oncologists

Primary eye care providers UM patients

- Ophthalmologists
- Optometrists



Surveys

analyzed by descriptive statistics



Optional follow-up interviews

summarized by qualitative descriptive analysis

Results

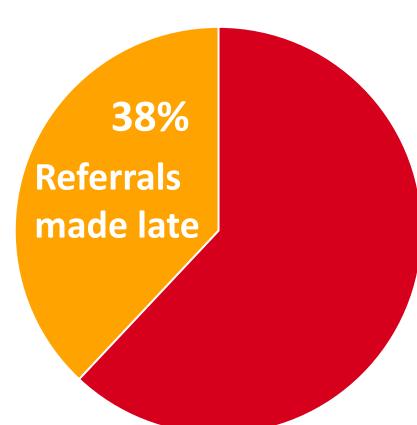
	Ocular oncologists	Primary eye care providers	UM patients
Surveys	18	21	12
Interviews	8	10	9

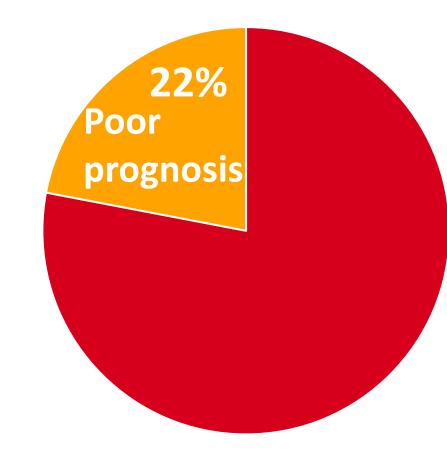
Table 1: Types and number of responses we received from stakeholders

Results cont.

From Ocular Oncologists

- Over a third of UM referrals are sent to ocular oncologists later than ideal
- 22% of patients have a poor prognosis upon initial visit
- 50% reported a problem with referrals having a lack of information (ex. highquality previous imaging and presence of risk factors) leading to difficulty in triaging patients





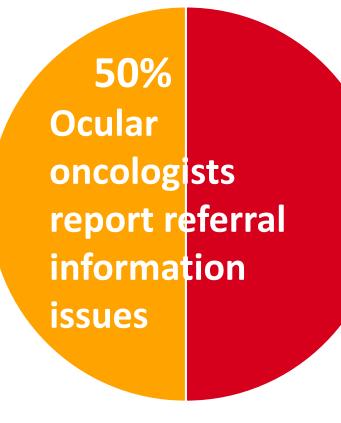


Figure 1: Referral timing for UM patients to ocular oncologists: on-time vs late

Figure 2: Prognosis of UM referrals upon initial visit with ocular oncologists

Figure 3: Ocular oncologists who report that referrals have inadequate information to triage accurately

Structural barriers (ex. scheduling and insurance complications) cause patients to bounce around referral system prior to seeing an ocular oncologist

From Primary Eye Care Providers

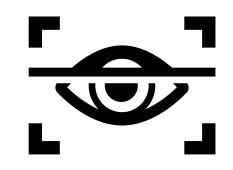
Only 19% of optometrists are "very confident" in differentiating between lowand high-risk lesions



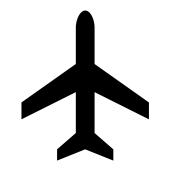
Figure 4: Confidence of primary eye care providers in assessing CMLs

- Unclear over where to send UM referrals
- Shortage of ocular oncologists for screening and monitoring patients with suspicious CMLs

From Patients



Misdiagnosis from primary eye care referrals to ocular oncologists → delay in treatment



Patients who do not live in an urban center must travel far (often interprovincially) to see an ocular oncologist



Eye care factors such as comprehensive eye exams and travel for appointments and treatment come with a significant cost

Discussion

Interpretation of data

- Delayed and poor-quality UM referrals impede early detection for UM → worsens prognosis
- Insufficient resources create obstacles for providers and patients in attempts for accessible and timely care
- UM patients experience practical challenges that exacerbate issues regarding access to care

Delayed UM referral and treatment

UM formation Poor-quality referrals Travel

Clinical Relevance

- A need exists for increased education or additional tools regarding UM detection and risk assessment for primary eye care providers
- Health services-related interventions addressing structural barriers that impede accessibility of care for UM patients are necessary
- Streamlining the UM referral process could improve outcomes of UM patients

Strengths

- Mixed methods \rightarrow integration of quantitative + qualitative results \rightarrow holistic understanding
- Investigation perspectives from a diverse set of stakeholders involved in the UM referral process
- Identification of real-world, practical challenges that providers and patients face preventing timely care of UM

Limitation

Small sample size for each stakeholder

Future Directions

- Analyze referral patterns of UM cases in Alberta to identify similar characteristics of referrals with advanced disease
- Interview additional stakeholders to gather more details on the specific problems identified

Conclusion

The referral process for suspected uveal melanoma is complicated and obscure. The results of this study could help inform future interventions aimed at improving that process for all stakeholders.

References

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