Evaluating AI Diagnostic Software for Ophthalmic Clinical Practice

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Introduction

Using artificial intelligence (AI) in clinical ophthalmology practices is advancing

Due to the variability and limitations of clinical implementation, we wanted to evaluate available AI based software within the market

Improvements for practitioners in

- Diagnostic accuracy
- Workflow efficiency
- Patient outcomes

Objective

The purpose of this study is to evaluate currently available AI-based ophthalmic software to inform practitioners about their potential for integration into routine clinical care.

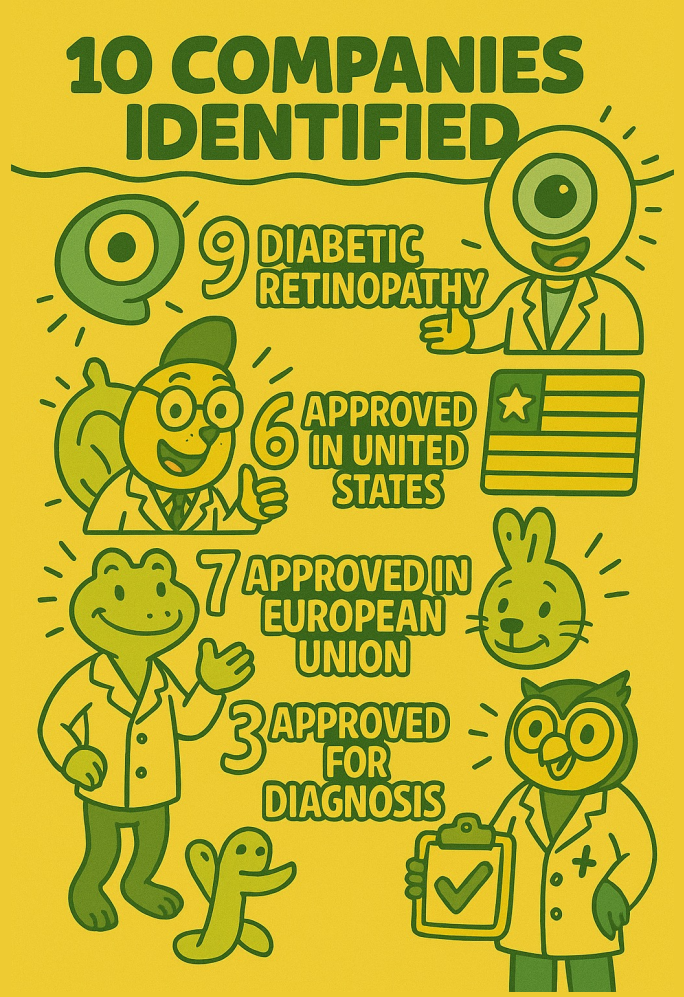
Methods

Rapid review study design
Searched:

- Crunchbase
- Pitchbook
- Advanced Google search
- ChatGPT web-based

Visited website of relevant companies
Scanned documents for data extraction

Results



Strengths & Limitations

+ Comprehensive search of prevalent databases
+ First known search and summary of this technology

- Don't have access to private research / documents.
- Only companies that have publicly disclosed their product are included (excluded pre-market, private beta, etc.)

Discussion

The current space is limited in scope to decision support rather then diagnoses

Many of the companies primarily focus on diabetic retinopathy

Creating a software that looks into various eye disorders as well as tracking progression would offer value

Conclusion

This study demonstrates that AI-driven ophthalmic solutions are limited in their clinical application focused on decision support which offers less value

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