Clinical Report

Generated: 2025-12-04 12:22:21

Stage: PDR

Metadata Snapshot

Name: Sebastian

Age: 89

Gender: Male

Systolic (mmHg): 190

Diastolic (mmHg): 110

BMI: 30.1

Glucose: 190

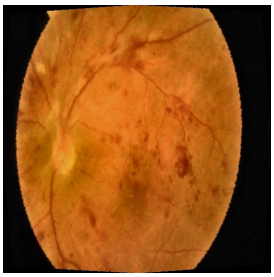
HbA1c: 8.5

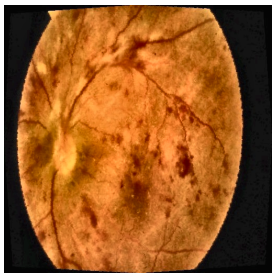
Cholesterol: 203

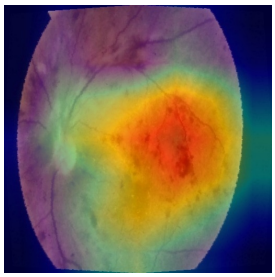
Smoking: Yes

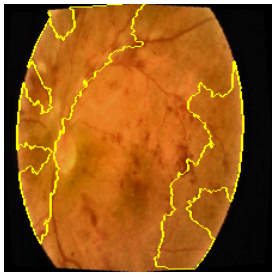
Hypertension: Yes

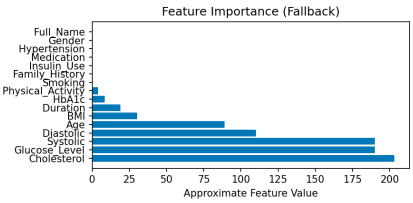
Diabetes Duration: 19











Summary

- Clinical Report — Ophthalmologist
- Patient: Name: Sebastian, Age: 89, BMI: 30.1
- Predicted stage: PDR
- Model confidence: 83.96%

Summary

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- Risk score: 96.04%
- Findings (automated lesion quantification):
- - Microaneurysms: 26.90%
- - Exudates: 15.32%
- - Hemorrhages: 3.65%
- - Cotton Wool: 0.00%
- - Neovascularization: 30.00%
- - Total Lesion Load: 45.88%
- Clinical interpretation:
- Features consistent with proliferative DR (neovascularization). Immediate retina specialist referral recommended (consider anti-VEGF / PRP).
- Model & Explainability:
- - Multi-model fusion: CNN ensemble (EfficientNet, ResNet50, ViT) + metadata models (RF, XGBoost, stacked ensemble).
- - Explainability outputs available: GradCAM++, LIME, SHAP — review heatmaps and overlay masks.
- Performance metrics:
- - Accuracy: 0.947
- - F1-score: 0.938
- - AUC/ROC: 0.971
- Suggested clinical action items:
- 1. Correlate with slit-lamp exam and fundus exam.
- 2. If macular edema suspected, obtain OCT imaging.
- 3. For suspected PDR, arrange urgent retina referral for potential PRP/anti-VEGF.
- 4. Document lesion masks if available for audit.