

Background

As the prevalence of diabetes and its microvascular complication, diabetic retinopathy (DR) increases¹, it is essential to identify populations at-risk for presenting with advanced DR. DR is the leading cause of new-onset blindness in American adults 24-70 years old² and increasing DR rates will lead to substantial rises in medical costs, lost productivity, and decreased quality of life.

Methods

- Retrospective cohort study
- 562 DR treatment-naive pts
- Inclusion criteria: complete electronic medical record (EMR) between Jan 2014 – Dec 2020
- Delayed presentation was defined as moderate or severe nonproliferative (NPDR) or proliferative diabetic retinopathy (PDR) at initial visit.
- Outcome measures: change in DR status and visual acuity
- Comparisons were performed with the Chi-square or Fisher's exact test. Linear and logistic regression modeling with general estimating equations to account for patients having two eyes were used to compare eye-level outcomes.
- A p-value < 0.05 was considered significant.

Results

Figure 1. Rate of having a PCP and Eye Exam Referral by DR Groups

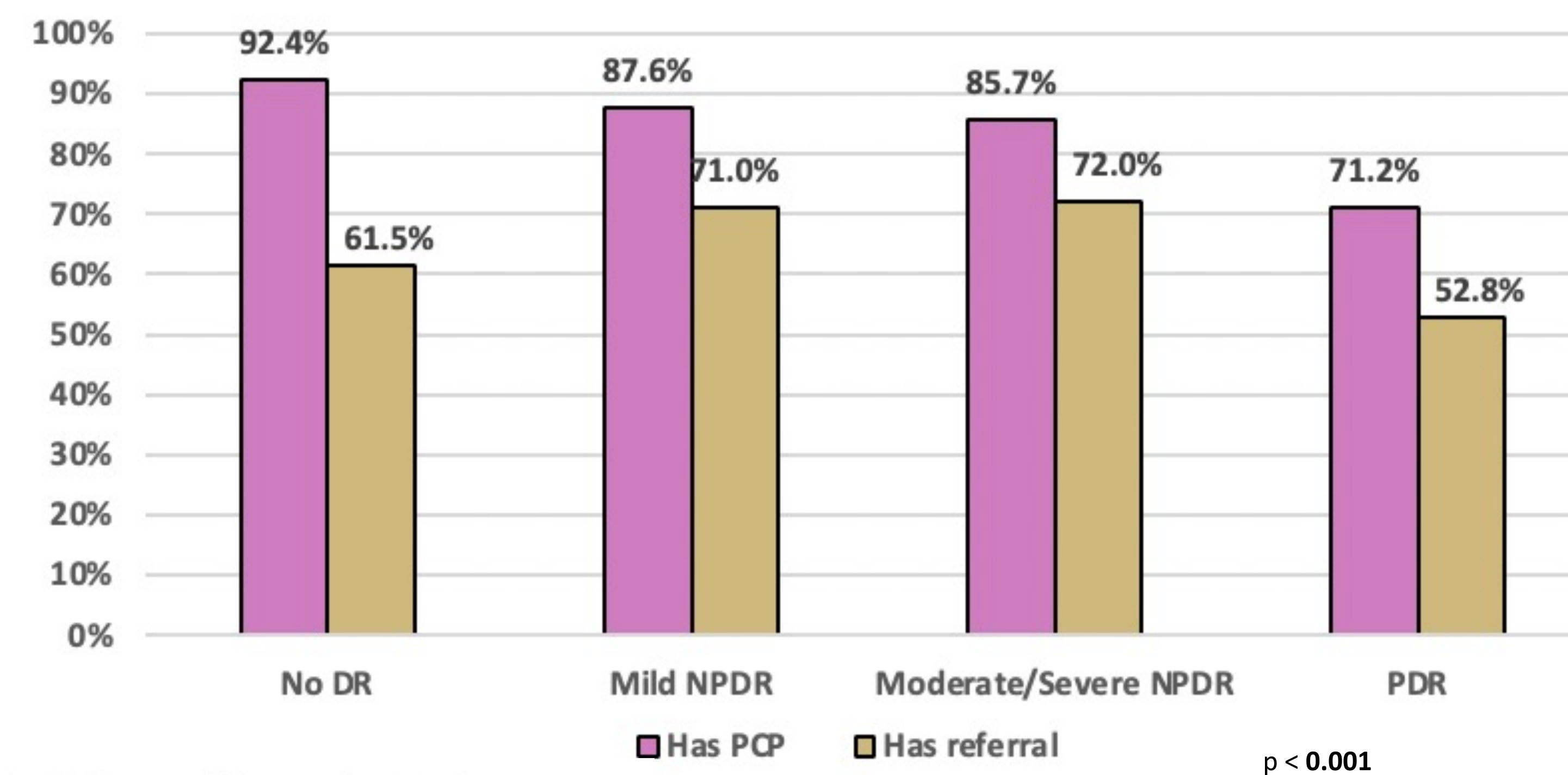
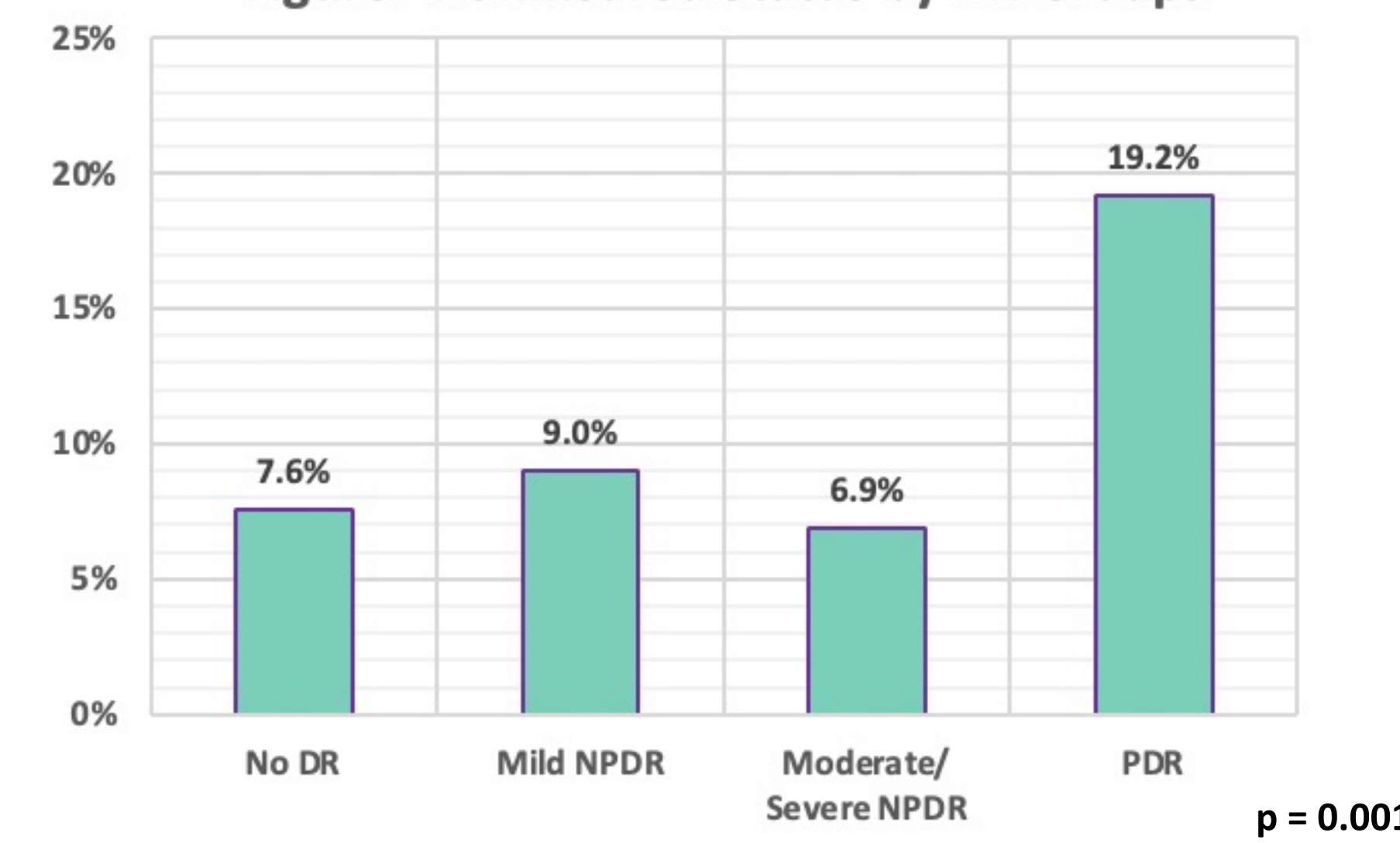


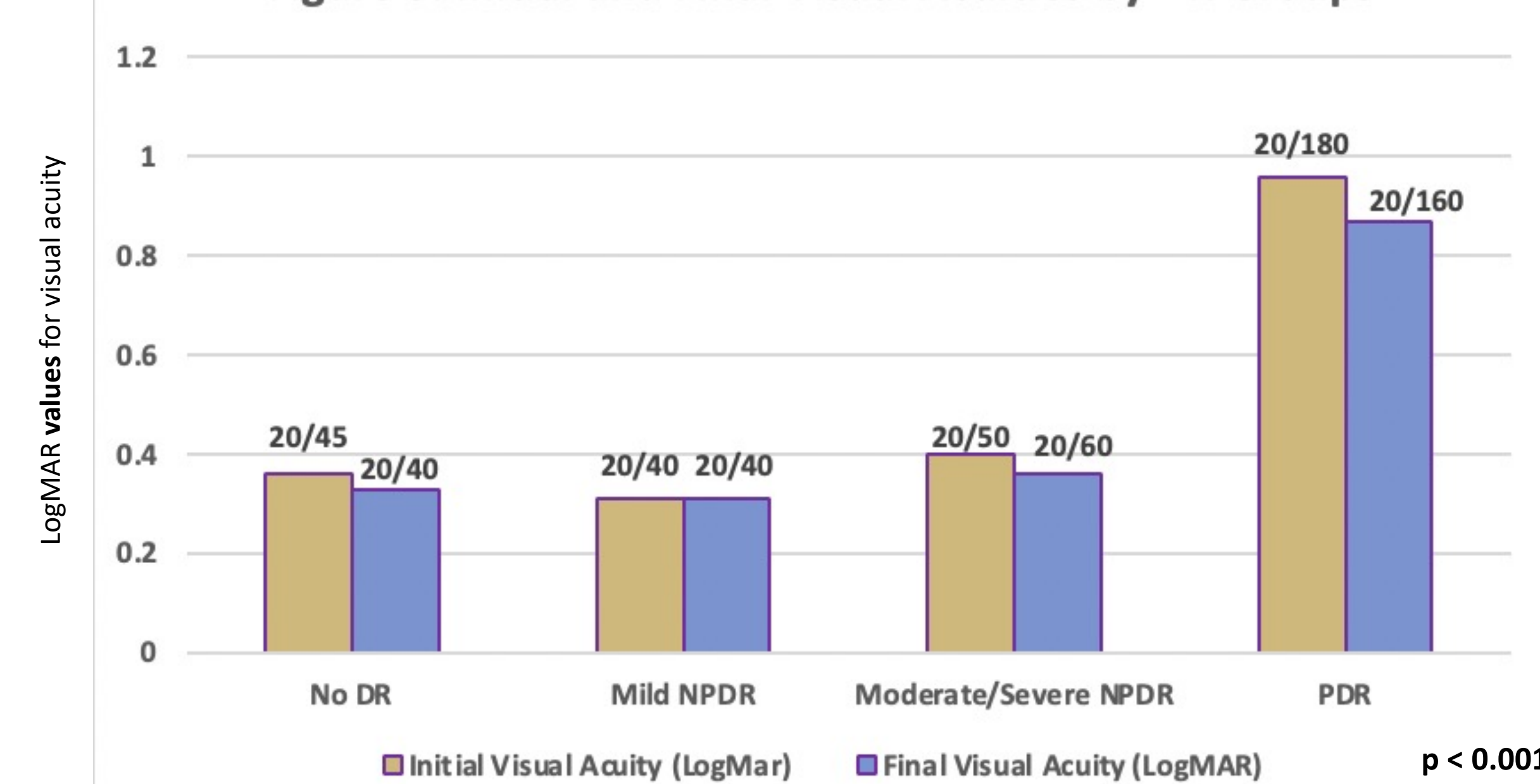
Figure 2. Uninsured Status by DR Groups



Number of Patients by DR Group

No DR	66
Mild NPDR	210
Moderate/Severe NPDR	161
PDR	125

Figure 3. Initial and Final Visual Acuities by DR Groups



Conclusions

- To the best of our knowledge, this is the first study to evaluate multiple risk factors for pts with delayed DR presentation at a US county hospital.
- Risk factors for delayed DR presentation are lack of PCP, lack of diabetic eye exam referral, and uninsured status.
- Findings emphasize need for proper DR screening programs targeting these at-risk populations.
- Possibilities: mobile eye clinics and telemedicine

References

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