Baseline factors affecting changes in diabetic retinopathy (DR) severity scale score after intravitreal aflibercept or laser for diabetic macular edema (DME)
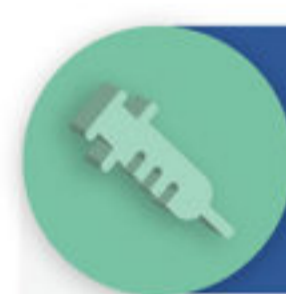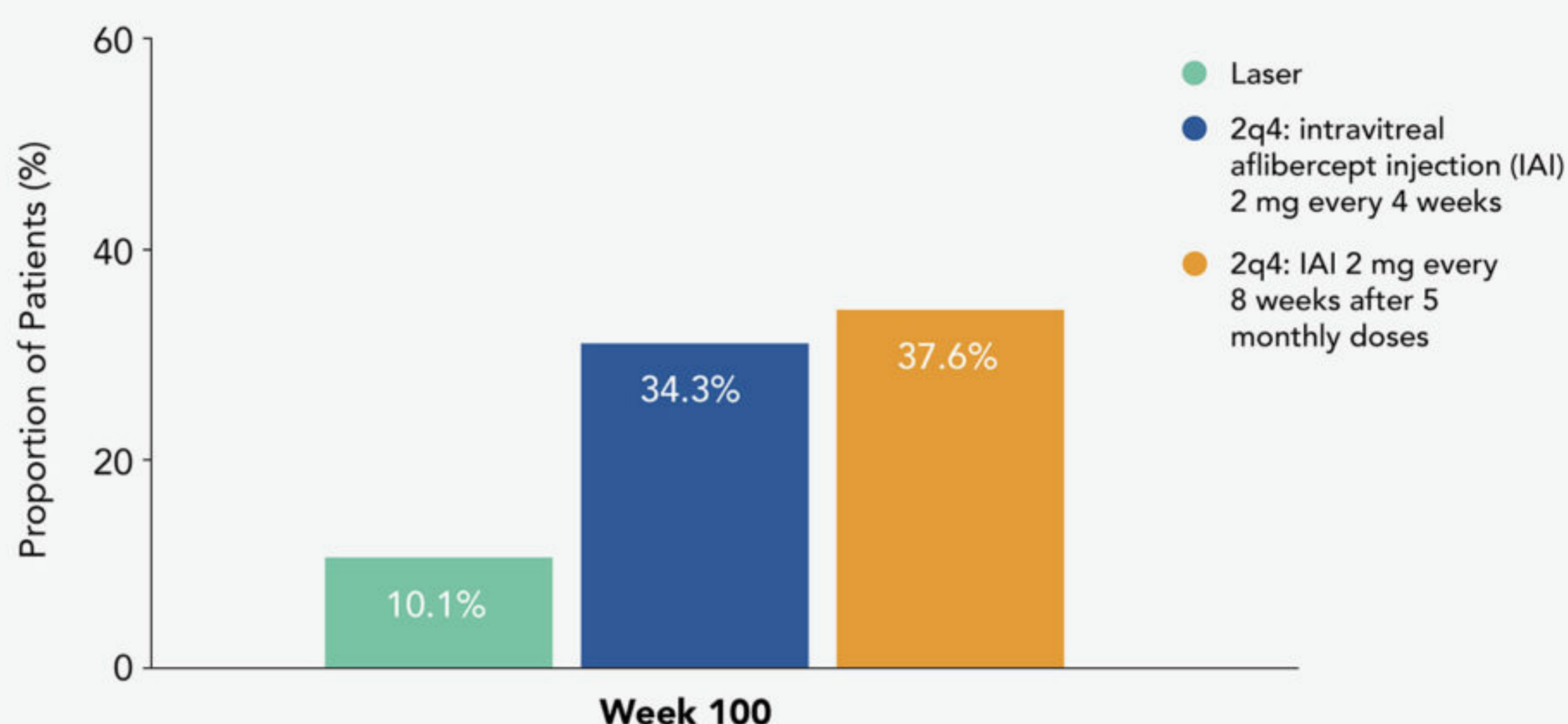## *Post-hoc Analyses from VISTA and VIVID*

The purpose of this study was to evaluate whether select baseline systemic and ocular factors influence ≥2-step improvement in the Diabetic Retinopathy Severity Scale (DRSS) score at week 100 in 2 similarly designed phase 3 trials, VISTA and VIVID.

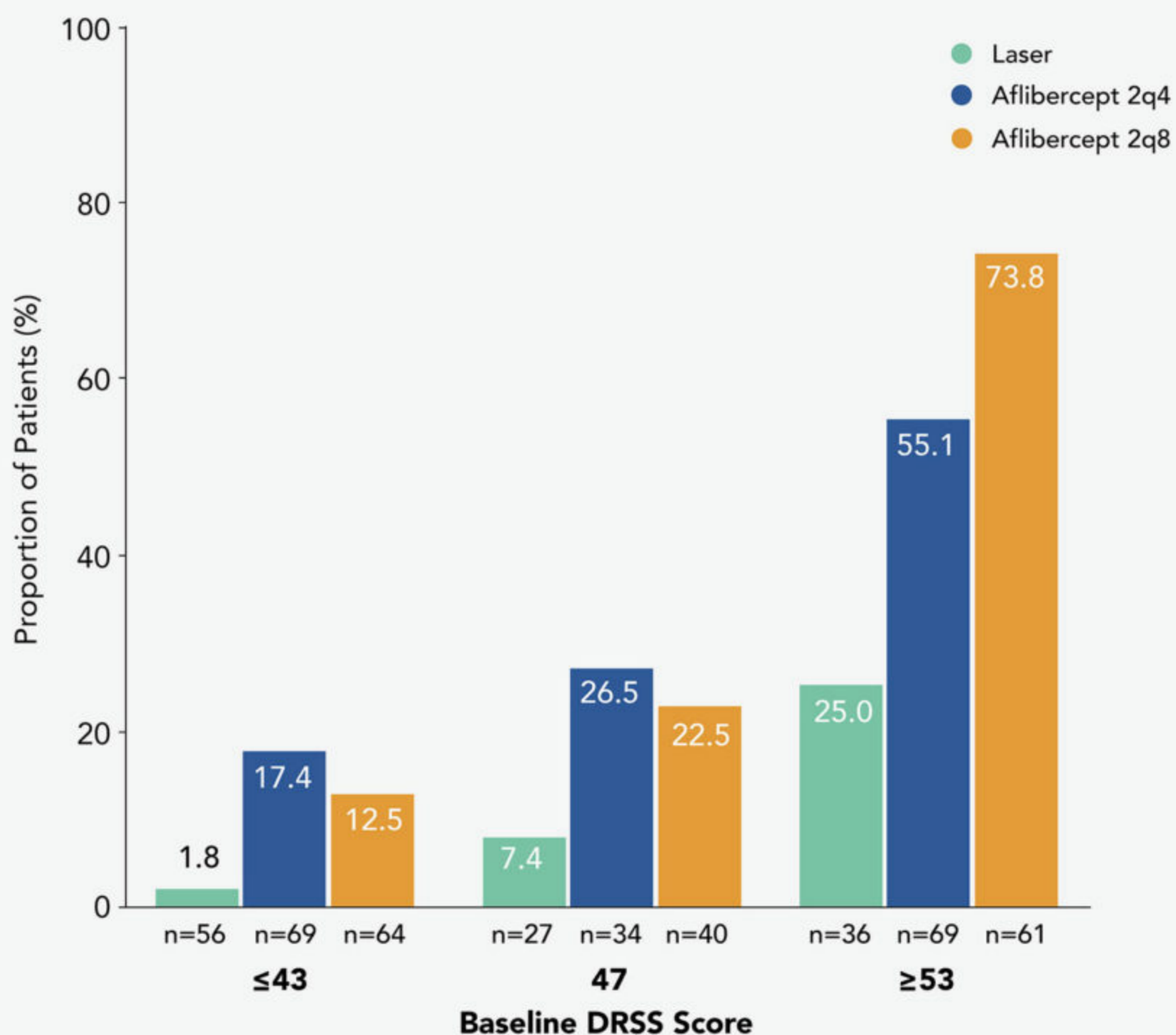## Greatest 2-step DRSS score improvement was seen in the aflibercept 2q8 group.

Proportion of patients experiencing ≥2-step DRSS improvement from baseline

Legend:
- Laser
- 2q4: intravitreal aflibercept injection (IAI) 2 mg every 4 weeks
- 2q4: IAI 2 mg every 8 weeks after 5 monthly doses

Week 100: Laser 10.1%, 2q4 34.3%, 2q8 37.6%

Initial DRSS score was the only factor significantly associated with ≥2-step improvement in DRSS score in all treatment groups at weeks 24, 52, 76, and 100.

Age, duration of diabetes, hemoglobin A1c (HbA1c), body mass index (BMI), best-corrected visual acuity (BCVA), and central subfield thickness (CST) **had no impact** on the ability to achieve ≥2-step improvement in DRSS score.

Proportion of patients with ≥2-step improvement in DRSS from baseline to week 100 by baseline DRSS score

Legend:
- Laser
- Aflibercept 2q4
- Aflibercept 2q8

Baseline DRSS Score:
- ≤43: Laser 1.8 (n=56), Aflibercept 2q4 17.4 (n=69), Aflibercept 2q8 12.5 (n=64)
- 47: Laser 7.4 (n=27), Aflibercept 2q4 26.5 (n=34), Aflibercept 2q8 22.5 (n=40)
- ≥53: Laser 25.0 (n=36), Aflibercept 2q4 55.1 (n=69), Aflibercept 2q8 73.8 (n=61)

Relatively higher proportions of intravitreal aflibercept injection (IAI)-treated patients with worse BCVA or thicker CST experienced 2-step DRSS score improvement compared with those with better BCVA or thinner CST, respectively, but these associations were not statistically significant.

Conclusions

A strong association was present between baseline DRSS score and ≥2-step DRSS score improvement at week 100 for DME patients in the VISTA and VIVID trials.