Purpose: To describe baseline characteristics of over 10,000 patients recruited in the LUMINOUS study. Method: LUMINOUS is a 5-year multicenter, prospective study evaluating long-term safety, effectiveness, treatment patterns, and health-related quality of life of patients treated in routine clinical practice with ranibizumab 0.5 mg across all approved indications. Consenting adult patients with or without prior ranibizumab/other ocular treatment are enrolled. Results: As of December 2013, baseline data were available for 10,071 (wAMD: n=9376; DME: n=454; BRVO: n=124; CRVO: n=117) patients, of which 7914 (78.6%) had prior ranibizumab treatment (T1), 1891 (18.8%) had no prior ranibizumab treatment (T2) and 266 (2.6%) had prior other ocular treatments (defined by the primary treated eye). The baseline mean visual acuity (VA) ETDRS letter score of the study eye was numerically higher in T1 than T2 across all indications (wAMD: 55.6/46.4 letters; DME: 55.3/40.8 letters; BRVO: 52.9/37.3 letters; CRVO: 45.2/38.9 letters). Baseline mean central retinal thickness (CRT) at baseline was numerically lower in T1 than T2 across all indications (wAMD: 265.6/347.3μm; DME: 371.5/429.3μm; BRVO: 328.8/456.5μm; CRVO: 365.9/555.4μm). Conclusion: LUMINOUS includes patients from real-world clinical practice settings and therefore characterizes a more diverse demographic than reported in the controlled pivotal trials. Across all indications, prior ranibizumab treatment was associated with numerically higher VA and lower CRT baseline values than the group without prior treatment.