Evidence Table 1: Activities of Daily Vision Scale (ADVS)

Study	Study Design	Study Population	Instrument Characteristics	Results	Quality Scoring/Comments
Elliott 2000 #4650	**Geographical location:** Canada **Dates:** Unknown **Context:** □ Clinical trial □ Cohort □ Cross sectional X Longitudinal **Inclusion/Exclusion criteria:** Cataract patients were recruited from four local ophthalmologists who performed extraction in the Waterloo Canada area. Subjects had to be scheduled for cataract surgery within one month and had no signs of comorbid ocular disease or significant neuromuschular skeletal or radioascular disorder that could interfere with mobility.	**Population size (n):** N=18 (first eye surgery) N=25 second eye surgery N=25 control Eye dx: Not reported **AMD:** 0 Other central vision loss (by type): Cataract: 100% **AMD Type:** Not reported **Laterality:** □ Unilateral X Bilateral **Objective Measure(s) of function (e.g., visual acuity):** Operated eye High contrast VA (logMAR): 0.54 ± 0.36 Log CS: 0.92 ±0.50 Disability glare: 5.2 ± 3.8	**Instrument/Technique Name:** ADVS-20 **Method of administration:** Self-report **By whom:** □ Masked □ Unmasked X Unknown **Mode of administration:** X Phone interview □ Face to face interview □ Mail questionnaire □ In office questionnaire □ Observation X Other (physical exam) **Respondent:** X Only patient □ Patient or surrogate □ Only surrogate □ Unknown **Time points of administration:** Pre-op and post-op	**Question 1C: psychometric properties (validity, reliability, responsiveness)** Internal consistency: The ADVS evidenced ceiling effects. Responsiveness: As might be expected, patients with first eye surgery improved more than those with second eye surgery. Notes: This study, of patients scheduled for cataract surgery and age-matched controls, is too small and uses too few forms of validation to provide much support for the validity of these 2 instruments. This study also included another instrument, the SRS, which had similar results but will be excluded because it has not been applied to patients with AMD.	**Quality assessment:** Meaningfully defined study population: - Protection from bias: 0 Consideration of statistical power: - **This article is relevant to:** □ Question 1A □ Question 1B X Question 1C □ Question 2 □ Question 3

Evidence Table 1: Activities of Daily Vision Scale (ADVS) – continued

Study	Study Design	Study Population	Instrument Characteristics	Results	Quality Scoring/Comments
Mangione 1999 #1730	**Geographical location:** Boston, MA **Dates:** 7/92-9/93 **Context:** □ Clinical trial □ Cohort X Cross sectional □ Other **Inclusion/Exclusion criteria:** Age > 45 AMD (drusen, RPE changes, geogr atrophy, exudative dz) Vision > 20/200 in at least one eye	**Population size (n):** 201 Eye dx: Not reported **AMD:** 100% **AMD Type:** 17% wet 83% dry **Laterality:** □ Unilateral X Bilateral **Objective Measure(s) of function (e.g., visual acuity):** Mild ARM: 64% Moderate ARM: 31% Severe ARM: 5% Visual acuity: Better eye: 20/25 Worse eye: 20/40	**Instrument/Technique Name:** ADVS; SF-36 **Method of administration:** **By whom:** □ Masked X Unmasked □ Unknown **Mode of administration:** □ Phone interview X Face to face interview □ Mail questionnaire □ In office questionnaire □ Observation □ Other **Respondent:** X Only patient □ Patient or surrogate □ Only surrogate **Time points of administration:** NA	**Question 1A: Instrument scores in AMD patients:** Construct Validity ADVS: Mild (128) / Moderate (62) / Severe (11) / P value Day Driving: 86 / 79 / 65 / < 0.05 Night driving: 60 / 53 / 33 / Near vision: 82 / 80 / 64 / < 0.05 Far vision: 84 / 81 / 72 / Glare: 77 / 77 / 58 / < 0.05 Overall: 80 / 77 / 62 / < 0.05 SF-36: Mild (128) / Moderate (62) / Severe (11) / P value Physical functioning: 79 / 80 / 79 / Role-physical: 67 / 76 / 77 / Bodily pain: 73 / 75 / 82 / General Health: 68 / 68 / 63 / Vitality: 61 / 59 / 66 / Social functioning: 92 / 92 / 99 / Role-emotional: 82 / 87 / 88 / Mental Health: 75 / 74 / 73 / Physical Compont.: -0.35 / -0.23 / -0.19 / Mental Compont.: -0.22 / 0.18 / 0.32 /	**Quality assessment:** Meaningfully defined study population: + Protection from bias: + Consideration of statistical power: - **This article is relevant to:** **X**Question 1A □ Question 1B X Question 1C □ Question 2 X Question 3

Evidence Table 1: Activities of Daily Vision Scale (ADVS) – continued

Study	Study Design	Study Population	Instrument Characteristics	Results	Quality Scoring/Comments
Mangione 1998 #2180	**Geographical location:** Ann Arbor, MI; Birmingham, MI; Boston, MA; Los Angeles, CA; Madison WI; San Francisco, CA **Dates:** 1998 **Context:** □ Clinical trial □ Cohort X Cross sectional □ Longitudinal **Inclusion/Exclusion criteria:** Diverse convenience sample for focus group	**Population size (n):** 246 Age Mean (range over conditions): 68 (40 - 77) % female: 55 Eye dx: Not reported **AMD:** 35 (14%) Other central vision loss (by type): AMD : 35 (14%) Glaucoma : 82 (33%) DR : 58 (24%) Cataract : 42 (17%) CMV retinitis : 17 (7%) Low vision: 12 (5%) **AMD Type:** Not reported **Laterality:** Not reported **Objective Measure(s) of function (e.g., visual acuity):** 20/40 or better: 139 (76%) 20/50 or worse: 43 (23%)	**Instrument/Technique Name:** ADVS **Method of administration:** **By whom:** X Masked □ Unmasked □ Unknown **Mode of administration:** X Phone interview □ Face to face interview □ Mail questionnaire □ Iin office questionnaire □ Observation X Other (physical exam) **Respondent:** X Only patient □ Patient or surrogate □ Only surrogate □ Unknown **Time points of administration:** NA (cross sectional)	**Question 1C: psychometric properties (validity, reliability, responsiveness)** Validity: Extensive interviews Reliability not assessed Responsiveness not tested	**General comments:** Apparently a convenience sample **Quality assessment:** Meaningfully defined study population: - Protection from bias: + Consideration of statistical power: - **This article is relevant to:** □ Question 1A □ Question 1B X Question 1C □ Question 2 □ Question 3

Evidence Table 1: Activities of Daily Vision Scale (ADVS) – continued

Study	Study Design	Study Population	Instrument Characteristics	Results	Quality Scoring/Comments
Pesudovs 2003 #8520	**Geographical location:** United Kingdom **Dates:** Unknown **Context:** □ Clinical trial □ Cohort X Cross sectional □ Longitudinal **Inclusion/Exclusion criteria:** Patients awaiting cataract surgery. No patients had comorbid eye disease.	**Population size (n):** 43 18 bilateral cataract 25 one pseudophakic eye and were awaiting second eye surgery Eye dx: Not reported **AMD:** Not reported **AMD Type:** Not reported **Laterality:** Not reported **Objective Measure(s) of function (e.g., visual acuity):**	**Instrument/Technique Name:** ADVS **Method of administration:** **By whom:** □ Masked □ Unmasked X Unknown **Mode of administration:** □ Phone interview □ Face to face interview □ Mail questionnaire X In office questionnaire (assumed) □ Observation □ Other **Respondent:** X Only patient □ Patient or surrogate □ Only surrogate □ Unknown **Time points of administration:** NA (cross sectional)	**Question 1C: psychometric properties (validity, reliability, responsiveness)** Internal consistency: Cronbach's alpha = .92. Construct validity: Correlation with visual acuity and contrast sensitivity ranged from .41 to .50. Scaling consistency: Rasch analysis, including an assessment of missing data, ceiling effects and Rasch statistics suggested that 15 of the 22 ADVS items performed better than the others. It was also recommended that the number of response categories be reduced. Responsiveness:	**Quality assessment:** Meaningfully defined study population: Protection from bias: 0 Consideration of statistical power: + (low power) **This article is relevant to:** □ Question 1A □ Question 1B X Question 1C □ Question 2 □ Question 3

Evidence Table 1: Activities of Daily Vision Scale (ADVS) – continued

Study	Study Design	Study Population	Instrument Characteristics	Results	Quality Scoring/Comments
Scilley 2002 #4020	**Geographical location:** Birmingham, AL **Dates:** **Context:** □ Clinical trial □ Cohort X Cross sectional □ Other **Inclusion/Exclusion criteria:** Patients: Age > 55 ARM in at least one eye (drusen) Acuity ≥ 20/60 No CNV or geographic atrophy Controls: Age > 55 No drusen Vision ≥ 20/35	**Population size (n):** 92 Gp 1: Early AMD Fellow < 20/60 Gp 2: Early AMD Fellow ≥20/60 Gp 3: Normal controls Age: Gp 1: 71 (66-75) Gp 2: 75 (69-83) Gp 3: 68 (57-74) Eye dx: Not reported **AMD:** 100% **AMD Type:** 0% wet 100%dry **Laterality:** □ Unilateral X Bilateral **Objective Measure(s) of function (e.g., visual acuity):** logMAR vision: Gp1: 0.22 (0.10/0.40) Gp2: 0.08 (-0.01/0.20) Gp3: -0.04 (-0.10/0.04) Scotopic sensitivity: Gp 1: 40.6 (32.4/44.3) Gp 2: 43.5 (41.0/46.2) Gp 3: 44.2 (41.5/46.0)	**Instrument/Technique Name:** ADVS **Method of administration:** **By whom:** □ Masked X Unmasked □ Unknown **Mode of administration:** □ Phone interview X Face to face interview □ Mail questionnaire □ In office questionnaire □ Observation □ Other **Respondent:** X Only patient □ Patient or surrogate □ Only surrogate **Time points of administration:** NA (cross sectional)	**Question 1A: Instrument scores in AMD patients:** **ADVS** / **Early AMD Fellow < 20/60** / **Early AMD Fellow ≥ 20/60** / **Con-trols** / **P value** **Day driving** / **83.3** / **100** / **100** / **<.001** **Night driving** / **58.3** / **81.3** / **100** / **<.001** **Near vision** / **73.4** / **96.6** / **100** / **<.001** **Far vision** / **66.7** / **91.7** / **100** / **.011** **Glare** / **64.6** / **91.7** / **100** / **<.001** **Overall** / **74.0** / **93.1** / **96.7** / **<.001** **Question 3: Relationship between QOL measures (s) and objective measures** Acuity < 20/25 in both eyes associated with difficulty on all ADVS subscales (see table above). Poor scotopic sensitivity associated with difficulty on night driving subscale (OR 6.6) but not other subscales.	**Quality assessment:** Meaningfully defined study population: + Protection from bias: + Consideration of statistical power: - **This article is relevant to:** X Question 1A □ Question 1B □ Question 1C □ Question 2 X Question 3

Evidence Table 1: Activities of Daily Vision Scale (ADVS) – continued

Study	Study Design	Study Population	Instrument Characteristics	Results	Quality Scoring/Comments
West 1997 #8200	**Geographical location:** Maryland **Dates:** 1993 **Context:** □ Clinical trial □ Cohort X Cross sectional □ Longitudinal **Inclusion/Exclusion criteria:** Random sample of 2500 aged 65-84 years of age from Medicare database. Individuals were eligible if they were 65-84 yrs old as of 7/1993 residing in the eligible zip codes of Salisbury metropolitan area and alive at time of contact; must be non-institutionalized, be able to communicate with interviewer and travel to clinic for vision tests and pass a mental health test.	**Population size (n):** 2500 65-69 yrs. 36.8 70-74 31.3 75-79 21 80-84 10.9 % female 57.9 % AA 26.4 Eye dx: Not reported **AMD:** **AMD Type:** Not reported **Laterality:** Not reported **Objective Measure(s) of function (e.g., visual acuity):** Binocular vision worse than 20/40 6.9%	**Instrument/Technique Name:** ADVS **Method of administration:** **By whom:** X Masked □ Unmasked □ Unknown **Mode of administration:** □ Phone interview X Face to face interview □ Mail questionnaire □ In office questionnaire □ Observation X Other (physical exam) **Respondent:** X Only patient □ Patient or surrogate □ Only surrogate □ Unknown **Time points of administration:** NA (cross sectional)	**Question 1C: psychometric properties (validity, reliability, responsiveness)** Construct validity: ADVS scores decreased with increasing age and were correlated (in a multivariate model) with visual acuity. Notes: This large study, conducted in a general population sample, provides some evidence in favor of the construct validity of the instrument.	**Quality assessment:** Meaningfully defined study population: + Protection from bias: + Consideration of statistical power: + **This article is relevant to:** □ Question 1A □ Question 1B X Question 1C □ Question 2 □ Question 3