Table D11. Medication adherence outcomes 3

| Author, Year  Trial Name | Medication Adherence Outcome 3 | Description of Timing of Measurement of Adherence Outcome 3 | Data Source | N | Results |
| --- | --- | --- | --- | --- | --- |
| Bosworth et al., 20056 V-STITCH | Adherence at 6 months among those non-adherent at baseline | Last 6 months; 2 times (including baseline); 6 months | Self-report | Total: 200 G1: NR G2: NR | G1: 46% G2: 34% 95% CI, NR p: 0.08 |
| Capoccia et al., 20049 NA | Adherence to antidepressants - at 9 mo | Defined as use of antidepressants for at least 25 of the past 30 days; measured at 3, 6, 9, 12 mos | Self-report | G1: NR G2: NR | G1: 48% G2: 67% 95% CI, NR p: NS |
| Choudhry et al., 201113  MI FREEE | Mean medication possession ratio (among patients who filled at least 1 prescription) | Number of days for which patients had a supply of each medication class available divided by the # days they were eligible for that medication. | Prescription claims data | **All 3 medication classes** G1: 1385 G2: 1389  **ACE inhibitor or** ARB G1: 1759 G2: 1775  **Beta-blockers** G1: 2159 G2: 2224  **Statins** G1: 2223 G2: 2267 | **All 3 medication classes** G1: 67.4 (15.5) G2: 62.9 (26.3) Absolute difference (95% CI): 4.5 (2.5-6.4) p: <0.001  **ACE inhibitor or ARB** G1: 66.5 (29.6) G2: 60.8 (30.7) Absolute difference (95% CI): 5.8 (3.6-8.1) p: <0.001  **Beta-blocker** G1: 65.0 (28.9) G2: 61.0 (28.9) Absolute difference (95% CI): 4.0 (2.1-5.9) p: <0.001  **Statin** G1: 70.5 (27.0) G2: 65.0 (28.4) Absolute difference (95% CI): 5.5 (3.6-7.5) p: <0.001 |
| Friedman et al., 199614 NA | Change in Antihypertensive medication adherence for baseline adherent subjects  (Proportion of total number of doses taken divided by the number that should have been taken by each subject) | Change scores were computed using value at 6 months minus value at baseline | Pill count | Overall N: 267 G1: NR G2: NR | G1: 0.6% G2: 3.0% 95% CI, NR p: 0.69 |
| Hoffman et al., 200318 NA | Percent adherence using HEDIS guidelines, at 3 months | Measured once at 3 months; adherence defined as a total of 30 gap days since beginning treatment (days 1-84) | PRD | G1: 4899 G2: 4665 | G1: 59.6 G2: 56.6 95% CI, NR p: < 0.01 |
| Katon et al., 199625  NA | Medication adherence - telephone interview asking if they were still taking antidepressants and considered adherent if they reported taking medication at least 25 out of last 30 days | Measured at 1-, 4-, and 7-month follow up | Other | G1: 76  G2: NS | **Major Depression Group at 7-month follow up**  (% adherent)  G1: 79%  G2: 54%  p=0.07  **Minor Depression Group at 1-, 4-, and 7-month follow up**  (% adherent)  G1: 65%  G2: 41%  p=.04 |
| Katon et al., 199926 NA  Katon et al., 200227 NA | Percent receiving twice the dosage of the lower-range AHCPR guideline of antidepressant  (Reported in 9123) | Likely measured once at 6-months for the previous 6 months of data | PRD | G1: 114 G2: 114 | G1: 46.8% G2: 25.7% Chi-square: 9.36 p: 0.002 |
| Montori et al., 201135  NA | Persistence: Median (range) number of days covered | Measured at 6 months | PRD | G1: 23 G2: 19 | G1: 170 (30-180) G2: 180 (28-180) 95% CI, NR p: 0.38 |
| Murray et al., 200736 NA | "Scheduling Adherence": Measure of adherence to timing, lower with day-to-day deviation in the timing of medication administration; daily meds need to be taken within 2.4 hrs of dose from preceding day; 2x/day meds need to be taken within 1.2 hrs of prior dose | During Intervention period (9 mos)   Frequency: continuous daily MEMS monitoring  Duration between measures: 12 to 24 hours, depending on med frequency | MEMS | G1: 122  G2: 192 | (95% CI) G1: 53.1% (49.1-57.1) G2: 47.2% (43.4-50.9)  Difference: 5.9% (0.4-11.5) p: NR |
| Nietert et al., 200937  NA | Filled prescription for any qualified medication in the same chronic disease classification as the index medication, within 60 days of index date | NR | PRD | G1: 1018  G2: 1016  G3: 1014 | Unadjusted G1: N (%) = 348 (34.2%) G2: N (%) = 342 (33.7%) G3: N (%) = 373 (36.8%) 95% CI, NR p: NR  Adjusted G1: Hazard ratio (HR, 97.5% CI) = 0.86 (0.68 to 1.08) G2: HR, 98.3% CI = 0.83 (0.65 to 1.07) G3: HR, 95.0% CI = 1.03 (0.84 to 1.26) 95% CI, NR p: NR |
| Okeke et al., 200938  N-A | Change in adherence rates (adjusted) | Dosing aids were downloaded after the observational cohort period (capturing data for a 3 month period) and at the end of the RCT (capturing data for a 3 month period) | Other | G1: 34  G2: 28 | G1: change in adherence rate (SD) 0.21 (0.05)  G2: change in adherence rate (SD) -0.002 (0.04)  95% CI, NR  p: 0.0001 |
| Pyne et al., 201141 HIV Translating Initiatives for Depression Into Effective Solutions (HITIDES) | HIV medication regiment adherence - at 6 months | Each measurement is percentage adherence over previous 4 days (i.e. total number of prescribed pills taken divided by total number of prescribed, transformed to dichotomous outcome with cutpoint at >=95%). 3 measurements taken: baseline, 6-month and 12-months. | Self-report | G1: 96 G2: 98 | G1: 74/96 (77.1)  G2: 72/98 (73.5)  OR: 1.23 (0.63-2.40) ; adjusted OR: 1.20 (0.60-2.31) Adjusted p: 0.65 |
| Rich et al., 199642 NA | >80% compliance by method 1 | 30 days +/- 2 days after discharge; 1 time; NA | Pill count | G1: 80 G2: 76 | Overall: 121 pts (77.6%)  G1: 68/80 (85.0%) G2: 53/76 (69.7%) 95% CI, NR p: 0.036 |
| Rudd et al., 200445 NA | Proportion of medications taken correctly among those on a >=2 times-daily dosing regimen | 1 day; daily ; 6 months | MEMS | NR | G1: 69% (34%) G2: 49% (41%) 95% CI, NR p: NR, not significant per text |
| Smith et al., 200853 NR | Proportion with a gap (in months) in filling beta blocker prescription | 1 month, NR, 1 month | Refill data | **1 month gap**: G1:104 G2: 110 **2 month gap** G1:63 G2: 67 **3 month gap** G1: 43 G2: 51 **4 month gap** G1: 30 G2: 37 | **1 month gap:** G1: 23% G2: 25% HR 0.85 (0.65, 1.12) adj HR 0.89 (0.67, 1.19)  **2 month gap** G1: 14% G2: 15% HR 0.86 (0.61, 1.22) adj HR 0.95 (0.67, 1.33)  **3 month gap** G1: 9% G2: 12% HR 0.77 (0.51, 1.16) adj HR 0.87 (0.60, 126)  **4 month gap** G1: 7% G2: 9% HR 0.74 (0.46, 1.20) adj HR 0.85 (0.54, 1.35) |
| Solomon et al., 199854 na  Gourley et al., 199855 NA | Self-report of compliance comparing Visit 1 and Visit 5 in HTN group | Visit 1: baseline Visit 5: between 4 and 6 months | Self-report | G1: 62 G2: 70 | G1:  Visit 1: 0.63 (SD 0.111) Visit 5: 0.23 (SD 0.054) CI: NR p <0.05  G2:  Visit 1: 0.60 (0.87) Visit 5: 0.61 (0.94) 95% CI NR  p NR |
| Stacy et al., 200956 NA | Medication possession ratio =/>80% | 6 months from baseline; 1 time; NA | PRD | G1: 253  G2: 244 | G1: 47.0% G2: 38.9%  Unadjusted OR (90% CI): 1.39 (1.03 to 1.88)  Adjusted OR (90%CI): 1.43 (1.05 to 1.96) p: <0.10 |
| Vivian et al.,  200258 NA | Compliance survey at 6 months: How often do you stop taking your medication when you think it is making you feel worse? (>/=once/wk) | Varied b/t groups; compliance measured in G1 at monthly visits, only measured at baseline and study end for G2 | Self-report | G1: 26  G2: 27 | G1: 40%  G2: 20%  95% CI, NR  p: 0.217 |
| Wilson et al., 201065 Better Outcomes of Asthma Treatment (BOAT) | Medication acquisition at Year 2 - all meds; Fill/reﬁll adherence was measured using a continuous medication acquisition (CMA) index for each year, calculated as the total days’ supply acquired in a given year divided by 365 days | Measured at Year-2 follow-up as aggregate for entire year | PRD | G1: 204  G2: 204  G3: 204 | Group differences G1-G3: 0.03 95% CI, -0.05 to 0.11  G1-G2: 0.04 95% CI, -0.04 to 0.12  G2-G3: -0.01  95% CI, -0.09 to 0.07  no significant differences across groups for all meds. No significant differences across groups for ICS alone, either. |
| Zhang et al., 201067  NA | Treatment intensity (average count of pills per day of treatment) | Pre and post part D | Other | **Hyperlipidemia**  G1: 418  G2: 647  G3: 5093  G4: 3027  **Diabetes**  G1: 247  G2: 304  G3: 2214  G4: 1253  **Hypertension:**  G1: 980  G2: 1234  G3: 8380  G4: 4141 | **Diabetes**  Unadjusted)  G1 Pre: 0.98; Post: 1.16  G2 Pre: 1.12; Post: 1.26  G3 Pre: 1.11 Post: 1.18  G4 Pre: 1.29; Post: 1.34  Multivariate 2-Year Part D Effect, estimate (95% CI)  G1: 0.184 (0.1 to 0.27)  G2: 0.095 (0.03 to 0.16)  G3: 0.02 (-0.01 to 0.05)  G4:  % change, estimated effects/pre value (95% CI)  G1: 18.8 (10.4 to 27.2)  G2: 8.5 (2.50 to 14.4)  G3: 1.8 (-1.2 to 4.8)  G4:  **Hypertension**  Unadjusted  G1 Pre: 1.26; Post: 1.56  G2 Pre: 1.48; Post: 1.63  G3 Pre: 1.52 Post: 1.64  G4 Pre: 1.65; Post: 1.75  Multivariate 2-Year Part D Effect, estimate (95% CI)  G1: 0.221 (0.16 to 0.28)  G2: 0.054 (0.02 to 0.09)  G3: 0.028 (0.01 to 0.05)  G4:  % change, estimated effects/pre value (95% CI)  G1: 17.6 (13.0 to 22.1)  G2: 3.7 (1.1 to 6.2)  G3: 1.8 (0.4 to 3.3)  G4: |