

Supplemental Table DS1. Stabilization criteria

| Author         | Criteria for symptom stabilization  | Criteria for treatment stabilization  | Stabilization phase duration (weeks) |
|----------------|---|---|--------------------------------------|
| Arato et al.   | Patients who had been hospitalized for $\geq 2$ months and had scores of $\leq 5$ on the CGI-S, and did not have a recent acute exacerbation of schizophrenia, a score of $\geq 5$ on items P7 or G8 of the PANSS, or displayed a significant risk of suicide, or had treatment resistance (defined as lack of therapeutic response to a conventional antipsychotic during an acute exacerbation on $\geq 2$ occasions in the previous 2 years)   | NA  | NA                                   |
| Beasley et al. | Patients who were in a remitted state as defined by the following criteria: minimal symptoms defined as a BPRS score of $\leq 36$ ; outpatient status; GAF score of $\geq 40$ ; lack of specific positive symptoms, as measured by a score of $\geq 4$ on the BPRS positive items of conceptual disorganization, suspiciousness, hallucinatory behavior, and unusual thought content; and taking a fixed individual dosage of olanzapine (10, 15, or 20 mg/d), and did not meet the following relapse criteria during the stabilization phase: an increase in any BPRS positive item to $>4$ , and either an absolute increase of 2 on that specific item or an absolute increase of 4 on the BPRS positive subscale (P2, P3, P6, G9); or hospitalization due to positive psychotic symptoms during the stabilization phase | NA  | 8                                    |
| Clark et al.   | Outpatient status for $\geq 3$ months   | Patients who were maintained on medication for $\geq 3$ months                        | NA                                   |
| Cooper et al.  | Patients who had a score of $\geq 3$ on the CGI-S and a history of recurrence within the past 18 months   | Patients who were currently maintained on antipsychotic medication                    | NA                                   |
| Fu et al.      | Patients who met the following stabilization criteria: PANSS total scores $\leq 70$ ; YMRS scores $\leq 12$ ; and HDRS-21 scores $\leq 12$ , and maintained symptom stabilization throughout the stabilization period   | Patients who did not need for dose adjustments of paliperidone-LAI                    | 12                                   |
| Hough et al.   | Patients who were stabilized with PANSS total score $\leq 75$ and selected PANSS item scores $\leq 4$ (P1, P2, P3, P6, P7, G8 and G14)  | Patients who continued established maintenance dose of paliperidone                   | 24                                   |
| Kane et al.    | Patients who met the following stability criteria for 4 consecutive weeks (2 consecutive visits 2 weeks apart): outpatient status; PANSS total score $\leq 80$ ; lack of specific psychotic symptoms on the PANSS, as measured by a score of $\leq 4$ on each of the following items: P2, P3, P6, G9; CGI-S score $\leq 4$ ; CGI-SS score $\leq 2$ on part 1 and $\leq 5$ on part 2   | NA  | 4-12                                 |
| Kramer et al.  | Patients who were deemed stable ( $\geq 2$ weeks)   | Patients who remained on established dose of paliperidone                             | 6                                    |
| Pigott et al.  | Patients who had a stable <sup>a</sup> condition (no significant improvement or worsening of symptoms within the past 3 months), and had a PANSS score of $\geq 60$ and a score of $\leq 4$ on the subscale for P7 or G8, and a score $\leq 4$ on the CGI-S   | Patients who received antipsychotic treatment and showed a response to this treatment | NA                                   |
| Rui et al.     | Patients who had no deliberate self-injury or violent behavior resulting in clinically significant injury to self or another person or property damage, no psychiatric hospitalization (involuntary or voluntary admission to a psychiatric hospital for decompensation of the patient's schizophrenic symptoms, PANSS score $< 70$ ) and prespecified individual PANSS scores (P1, P2, P3, P6, P7 and G8) $\leq 4$   | Patients who received no changes in established dose of paliperidone                  | 6                                    |
| Tandon et al.  | Patients who achieved and maintained the following clinical stability criteria for $\geq 12$ weeks: a PANSS total score $\leq 70$ , with PANSS item scores $\leq 4$ on all positive subscale items and item G8; and a CGI-S score $< 4$ <sup>b</sup>  | Patients who remained on a stable dose of lurasidone for 4 weeks                      | 12-24                                |

Abbreviations: BPRS, Brief Psychiatric Rating Scale; CGI-S, Clinical Global Impression - Severity scale; CGI-SS, Clinical Global Impression - Severity of Suicidality scale; GAF, Global Assessment of Functioning; HDRS-21, Hamilton Depression Rating Scale 21-item version; LAI, long-acting injection; NA, not applicable; PANSS, Positive and Negative Syndrome Scale; YMRS, Young Mania Rating Scale

<sup>a</sup>The term "stable" refers to a consistency of residual symptomatology over the past 3 months and does not include those patients doing well or controlled on treatment with current medication.

<sup>b</sup>Two excursions (defined as a PANSS total score  $\leq 80$  and/or a CGI-S score of  $\leq 4$  and/or PANSS positive subscale item score of  $\leq 5$ ) after initial attainment of these stability criteria were permitted, except during the last 4 weeks of the open-label stabilization phase.

Supplemental Table DS2. Sample size at each time point in antipsychotic treatment arm<sup>a</sup>

| Study                | 0W          | 1W         | 2W         | 3W         | 4W          | 8W          | 12W        | 16W         | 20W         | 24W        | 28W         | 32W         | 36W        | 40W        | 44W        | 48W        | 52W        |
|----------------------|-------------|------------|------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|------------|------------|------------|------------|
| Arato et al. (arm 1) | 71          |            |            |            |             |             |            |             |             |            |             |             |            |            |            |            | 71         |
| Arato et al. (arm 2) | 68          |            |            |            |             |             |            |             |             |            |             |             |            |            |            |            | 68         |
| Arato et al. (arm 3) | 67          |            |            |            |             |             |            |             |             |            |             |             |            |            |            |            | 67         |
| Beasley et al.       | 224         |            |            |            |             |             |            |             |             |            |             | 224         |            |            |            |            |            |
| Clark et al. (arm 1) | 15          |            |            |            |             |             |            |             |             | 15         |             |             |            |            |            |            |            |
| Clark et al. (arm 2) | 15          |            |            |            |             |             |            |             |             | 15         |             |             |            |            |            |            |            |
| Cooper et al.        | 61          |            | 61         |            | 61          | 61          |            | 61          | 61          |            | 61          |             |            |            |            |            |            |
| Fu et al.            | 164         |            |            |            | 164         | 164         | 164        | 164         | 164         | 164        | 164         | 164         | 164        | 164        | 164        | 164        | 164        |
| Hough et al.         | 205         |            |            |            | 205         | 205         | 205        | 205         | 205         | 205        | 205         | 205         | 205        | 205        | 205        | 205        | 205        |
| Kane et al.          | 269         |            | 269        |            | 269         | 269         | 269        | 269         | 269         | 269        | 269         | 269         | 269        | 269        | 269        | 269        | 269        |
| Kramer et al.        | 104         | 104        | 104        | 104        | 104         | 104         | 104        | 104         | 104         | 104        | 104         | 104         | 104        | 104        |            |            |            |
| Pigott et al.        | 148         |            |            |            |             | 148         |            |             |             |            | 148         |             |            |            |            |            |            |
| Rui et al.           | 64          | 64         | 64         | 64         | 64          | 64          | 64         | 64          | 64          | 64         | 64          | 64          | 64         | 64         | 64         | 64         | 64         |
| Tandon et al.        | 143         | 143        | 143        |            | 143         | 143         | 143        | 143         | 143         | 143        | 143         |             |            |            |            |            |            |
| <b>Total</b>         | <b>1618</b> | <b>311</b> | <b>641</b> | <b>168</b> | <b>1010</b> | <b>1158</b> | <b>949</b> | <b>1010</b> | <b>1010</b> | <b>979</b> | <b>1158</b> | <b>1030</b> | <b>806</b> | <b>806</b> | <b>497</b> | <b>497</b> | <b>703</b> |

<sup>a</sup>PANSS or BPRS total scores were collected for each study for up to 52 weeks from randomization; weekly for the first 4 weeks and at 4-week intervals thereafter. Values at 4n weeks + 2 weeks were recorded as values at 4(n+1) weeks.

Supplemental Table DS3. Sample size at each time point in placebo treatment arm<sup>a</sup>

| Study          | 0W          | 1W         | 2W         | 3W         | 4W         | 8W          | 12W        | 16W        | 20W        | 24W        | 28W         | 32W        | 36W        | 40W        | 44W        | 48W        | 52W        |
|----------------|-------------|------------|------------|------------|------------|-------------|------------|------------|------------|------------|-------------|------------|------------|------------|------------|------------|------------|
| Arato et al.   | 71          |            |            |            |            |             |            |            |            |            |             |            |            |            |            |            | 71         |
| Beasley et al. | 100         |            |            |            |            |             |            |            |            |            |             | 100        |            |            |            |            |            |
| Clark et al.   | 10          |            |            |            |            |             |            |            |            | 10         |             |            |            |            |            |            |            |
| Cooper et al.  | 58          |            | 58         |            | 58         | 58          |            | 58         | 58         |            | 58          |            |            |            |            |            |            |
| Fu et al.      | 170         |            |            |            | 170        | 170         | 170        | 170        | 170        | 170        | 170         | 170        | 170        | 170        | 170        | 170        | 170        |
| Hough et al.   | 203         |            |            |            | 203        | 203         | 203        | 203        | 203        | 203        | 203         | 203        | 203        | 203        |            |            |            |
| Kane et al.    | 134         |            | 134        |            | 134        | 134         | 134        | 134        | 134        | 134        | 134         | 134        | 134        | 134        | 134        | 134        | 134        |
| Kramer et al.  | 101         | 101        | 101        | 101        | 101        | 101         | 101        | 101        | 101        | 101        | 101         | 101        | 101        | 101        |            |            |            |
| Pigott et al.  | 149         |            |            |            |            | 149         |            |            |            |            | 149         |            |            |            |            |            |            |
| Rui et al.     | 71          | 71         | 71         | 71         | 71         | 71          | 71         | 71         | 71         | 71         | 71          | 71         | 71         | 71         | 71         | 71         | 71         |
| Tandon et al.  | 141         | 141        | 141        |            | 141        | 141         | 141        | 141        | 141        | 141        | 141         |            |            |            |            |            |            |
| <b>Total</b>   | <b>1208</b> | <b>313</b> | <b>505</b> | <b>172</b> | <b>878</b> | <b>1027</b> | <b>820</b> | <b>878</b> | <b>878</b> | <b>830</b> | <b>1027</b> | <b>779</b> | <b>679</b> | <b>679</b> | <b>375</b> | <b>375</b> | <b>446</b> |

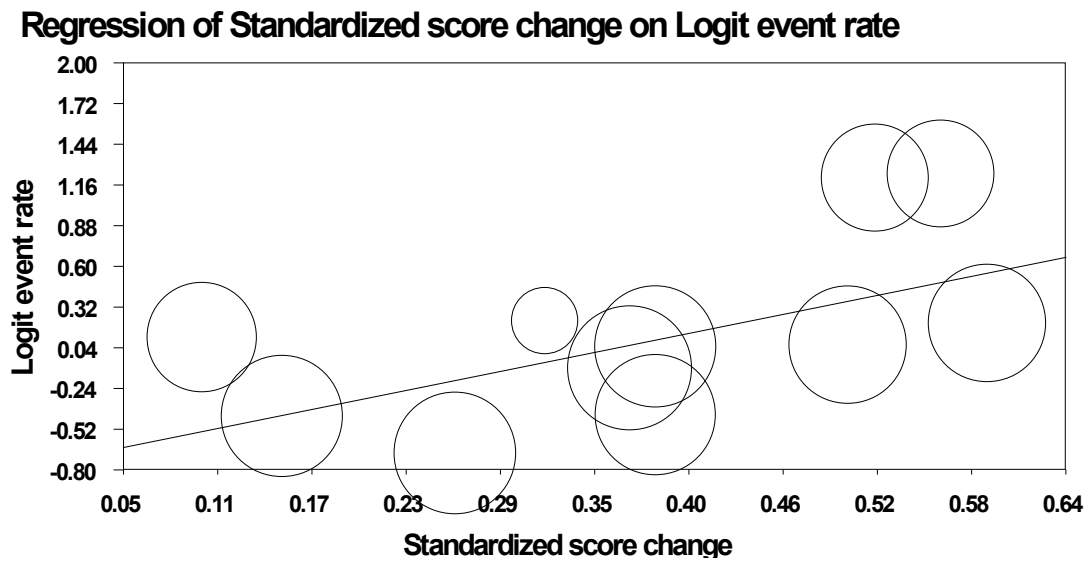
<sup>a</sup>PANSS or BPRS total scores were collected for each study for up to 52 weeks from randomization; weekly for the first 4 weeks and at 4-week intervals thereafter. Values at 4n weeks + 2 weeks were recorded as values at 4(n+1) weeks.

Supplemental Figure DS1. Risk of bias summary

|                | Random sequence generation (selection bias) | Allocation concealment (selection bias) | Blinding of participants and personnel (performance bias) | Blinding of outcome assessment (detection bias) | Incomplete outcome data (attrition bias) | Selective reporting (reporting bias) | Other bias |
|----------------|---|---|---|---|--|--------------------------------------|------------|
| Arato et al.   | +   | ?                                       | ?   | ?   | -  | -                                    | +          |
| Beasley et al. | ?   | ?                                       | ?   | ?   | -  | -                                    | -          |
| Clark et al.   | +   | ?                                       | ?   | ?   | -  | -                                    | +          |
| Cooper et al.  | +   | +                                       | ?   | ?   | -  | +                                    | +          |
| Fu et al.      | +   | ?                                       | ?   | ?   | -  | +                                    | +          |
| Hough et al.   | +   | +                                       | ?   | ?   | -  | +                                    | -          |
| Kane et al.    | ?   | ?                                       | ?   | ?   | -  | +                                    | -          |
| Kramer et al.  | +   | +                                       | ?   | ?   | -  | +                                    | -          |
| Pigott et al.  | ?   | ?                                       | ?   | ?   | -  | -                                    | +          |
| Rui et al.     | ?   | +                                       | ?   | ?   | -  | +                                    | -          |
| Tandon et al.  | ?   | +                                       | +   | +   | -  | +                                    | -          |

Note: +, low risk of bias; -, high risk of bias; ?, questionable risk of bias

Supplemental Figure DS2. Meta-regression analysis (mixed effects unrestricted maximum likelihood) examining the moderator effect of standardized score changes on relapse rates in patients switching to placebo



**Mixed effects regression (unrestricted maximum likelihood)**

|                    | Point estimate | Standard error | Lower limit | Upper limit | Z-value  | p-Value |
|--------------------|----------------|----------------|-------------|-------------|----------|---------|
| <b>Slope</b>       | 2.22518        | 0.89117        | 0.47852     | 3.97185     | 2.49692  | 0.01253 |
| <b>Intercept</b>   | -0.75981       | 0.36164        | -1.46861    | -0.05100    | -2.10100 | 0.03564 |
| <b>Tau-squared</b> | 0.15425        |                |             |             |          |         |

|                 | Q        | df       | p-value |
|-----------------|----------|----------|---------|
| <b>Model</b>    | 6.23460  | 1.00000  | 0.01253 |
| <b>Residual</b> | 11.25674 | 9.00000  | 0.25852 |
| <b>Total</b>    | 17.49133 | 10.00000 | 0.06417 |