

**Supplementary tables** Penttilä *et al* Duration of untreated psychosis as predictor of long-term outcome in schizophrenia. *Br J Psychiatry* 2014; **205**: 88–94.

**Table DS1** Characteristics of included original studies on duration of untreated psychosis (DUP) and long-term outcome.

Reference (country)	Follow-up in years (start years) and study design	Sample size at baseline	Sample size at follow-up	Mean onset age in years	Definition of DUP	Mean (SD) <sup>a</sup> DUP in weeks	Outcome measures	Percentage of subjects diagnosed with schizophrenia	Quality score
Addington et al. 2004 <sup>b</sup> (Canada)	2 (1997-2000) Prospective clinical sample	278	164	23.2	Time between first positive symptom and first effective treatment	84 (139)	Positive and negative symptoms (PANSS <sup>c</sup> ) Quality of life (QLS <sup>d</sup> )	68%	19
Addington and Addington 2008 <sup>b</sup> (Canada)	2.2 (1997-2000) Prospective clinical sample	292	240	24.5	same as above	-	Remission (Andreasen et al. 2005)	70%	16
Altamura et al. 2001 (Italy)	6.9 - Retrospective clinical sample	82	67	24.2	Time between onset of illness and first antipsychotic treatment	84 (58)	Hospital treatments (mono- vs. multiepisode and number of relapses)	82%	8
Ayesa-Arriola et al. In press	3 (2001-2008) Prospective clinical sample	284	202	27.7	Time between first continuous psychotic symptom and initiation of adequate antipsychotic drug treatment	58.3	Social functioning (functional deficits)	60%	17
Boden et al. 2009 (Sweden)	5 (1995-2000) Register-based study (cross-	124	76	~28.5	Time between first psychotic symptom and first contact	-	General symptomatic outcome (PANSS <sup>c</sup> ) Positive and negative symptoms (PANSS <sup>c</sup> )	80%	13

Reference (country)	Follow-up in years (start years) and study design	Sample size at baseline	Sample size at follow-up	Mean onset age in years	Definition of DUP	Mean (SD) <sup>a</sup> DUP in weeks	Outcome measures	Percentage of subjects diagnosed with schizophrenia	Quality score
	sectional)				with psychiatric services (Flyckt et al. 2006)		Social functioning (composite measure of good functions) Quality of life (Satisfaction with life Scale) Remission (Andreasen et al. 2005, without time criteria)		
Bottlender et al. 2003 (Germany)	15 (1980-82) Prospective clinical sample	70	58	30.1	Time between psychotic symptoms and psychiatric admission	-	Positive symptoms (PANSS <sup>c</sup> ) Negative symptoms (PANSS <sup>c</sup> and SANS <sup>e</sup> ) Global outcome (GAS <sup>f</sup> and SANS <sup>e</sup> + PANSS <sup>c</sup> negative, positive and general+GAS <sup>g</sup> )	100%	17
Cechnicki et al. 2011 (Poland)	12 (1997-2000) Prospective clinical sample	75	58	27.3	Not reported	-	General symptomatic outcome (number of relapses and Global BPRS <sup>g</sup> ) Positive symptoms Negative symptoms Hospital treatments (number and duration of readmissions)	100%	9
Chang et al. 2011a <sup>h</sup> (Hong Kong)	3 - Prospective clinical sample	138	93	31.2	Time between onset of positive psychotic symptoms and treatment initiation	68 (112)	Negative symptoms (Persistent negative symptoms)	81%	19
Chang et al. In press <sup>h</sup> Chang et al. 2011b	3 - Prospective clinical sample	138	84	39.1	Same as above		Positive symptoms (PANSS <sup>c</sup> )	80%	19

Reference (country)	Follow-up in years (start years) and study design	Sample size at baseline	Sample size at follow-up	Mean onset age in years	Definition of DUP	Mean (SD) <sup>a</sup> DUP in weeks	Outcome measures	Percentage of subjects diagnosed with schizophrenia	Quality score
Chang et al. 2012 (Hong Kong)	3 (2001-2003) Prospective clinical sample	484	395	20.5	Time between onset of positive symptoms and first contact with the psychiatric service	42 (59)	General symptomatic outcome (recovery) Positive symptoms (average CGI-S <sup>i</sup> score over 3 years and year 3 average CGI-S <sup>i</sup> score) Negative symptoms (average CGI-S <sup>i</sup> score over 3 years and year 3 average CGI-S <sup>i</sup> score) Employment (full-time employment)	Not reported, schizophrenia spectrum 100%	18
Craig et al. 2000 (USA)	2 (1989-95) Prospective clinical sample	155	83-149	-	Time between first clear psychotic symptom and first psychiatric hospitalization	-	General symptomatic outcome (full remission, partial remission=one or more episodes followed by partial remission, no remission=continuously ill) Positive symptoms (SAPS <sup>l</sup> ) Negative Symptoms (SANS <sup>e</sup> ) Hospital treatments (rehospitalisation) Global outcome (GAF <sup>k</sup> ) Other (HDRS <sup>l</sup> and BHS <sup>m</sup> , subscales of BPRS <sup>g</sup> )	Not reported, schizophrenia spectrum 100%	15
de Haan et al. 2003 (Netherlands)	6 - Prospective clinical sample	88	88	19	Time between the first psychotic symptoms and antipsychotic medication for a minimum of 6 weeks	37 (50)	Positive and negative symptoms (PANSS <sup>c</sup> ) Hospital treatments (months of hospitalisations) Social functioning (living condition, hobbies and activities) Employment (education, volunteer work and regular work)	84%	12

Reference (country)	Follow-up in years (start years) and study design	Sample size at baseline	Sample size at follow-up	Mean onset age in years	Definition of DUP	Mean (SD) <sup>a</sup> DUP in weeks	Outcome measures	Percentage of subjects diagnosed with schizophrenia	Quality score
							Global outcome (global score) Other (severe and mild relapses, mild and severe negative symptoms)		
Gorna et al. 2008 <sup>n</sup> (Poland)	5 (1998-2002) Prospective clinical sample	96	74	24.7	Not reported	45 (61)	Employment (subscale of SFS <sup>o</sup> ) Quality of life (overall quality of life)	100%	10
Jaracz et al. 2007 <sup>n</sup>	Same as above	96	74	24.7	Time between psychotic symptoms and first hospitalization	-	Social functioning (SFS <sup>o</sup> total)	100%	14
Jaracz et al. 2012 <sup>n</sup>	8.1 (1998-2002) Prospective clinical sample	96	64	24.5	Not reported	44.6	Remission (Andreasen et al. 2005)	100%	13
Harris et al. 2005 (Australia)	8 (1989-1992 and 1993-97) Prospective clinical sample	559	182	22.4	Time between first experience of delusions or hallucinations and medication (usually)	24 (50)	Positive symptoms (BPRS <sup>b</sup> ) Negative symptoms (SANS <sup>e</sup> ) Social functioning (SOFAS <sup>p</sup> ) Quality of life (QLS)	Not reported, schizophrenia spectrum 100%	15
Hassan and Taha 2011 (Saudi-Arabia)	3.2 (2003) Prospective clinical sample	56	37	12.2	Time between first psychotic symptoms and start of treatment	77 (122)	Positive symptoms (PANSS <sup>c</sup> ) Negative symptoms (PANSS <sup>c</sup> ) Remission (Andreasen et al. 2005) Global outcome (C-GAS <sup>q</sup> )	81% (Early onset schizophrenia)	12
Hegelstad	10 (1997-	281	148	26.1	Time between onset		General symptomatic outcome (PANSS <sup>c</sup> )	66%	19

Reference (country)	Follow-up in years (start years) and study design	Sample size at baseline	Sample size at follow-up	Mean onset age in years	Definition of DUP	Mean (SD) <sup>a</sup> DUP in weeks	Outcome measures	Percentage of subjects diagnosed with schizophrenia	Quality score
et al. 2012 Melle et al. 2008	2001) Prospective clinical sample				of psychosis (PANSS <sup>c</sup> score of at least 4) and adequate treatment (medication or hospitalization)		Positive symptoms (PANSS <sup>c</sup> ) Negative symptoms (PANSS <sup>c</sup> ) Hospital treatments (admission during final year of follow-up) Social functioning (GAF <sup>k</sup> -functioning) Employment (Strauss-Carpenter Scale) Global outcome (recovery) Remission (Andreasen et al. 2005)		
Hill et al. 2012 (Ireland) Clarke et al. 2006, Crumlish et al. 2009	12 (1995-99) Prospective clinical sample	171	86	29.0	Time between first psychotic symptom and antipsychotic treatment	88 (158)	General symptomatic outcome (MIRECC-GAF <sup>f</sup> ) Positive symptoms (PANSS <sup>c</sup> ) Negative symptoms (PANSS <sup>c</sup> ) Social functioning (MIRECC-GAF <sup>f</sup> social and functional outcome factor) Employment (MIRECC-GAF <sup>f</sup> occupation) Quality of life (QLS <sup>d</sup> ) Global outcome (GAF <sup>k</sup> and Strauss-Carpenter Level of Functioning Scale) Remission (Andreasen et al. 2005)	100%	20
Ichinose et al. 2010 <sup>s</sup> (Japan)	28 (1979-80) Prospective clinical sample	107	31	24.0	Time between disease onset and start of treatment	39 (57)	General symptomatic outcome (CGI <sup>v</sup> ) Positive and negative symptoms (PANSS <sup>c, u</sup> ) Social functioning (DAS <sup>t</sup> ) Global outcome (GAS <sup>f</sup> , GAF <sup>k</sup> ) Other (suicides)	100%	15
Kinoshita et al. 2005 <sup>s</sup>	15 (1979-80) Prospective	107	52	24.8	Time between onset of the illness	43 (74)	General symptomatic outcome (good outcome = complete remission without	100%	11

Reference (country)	Follow-up in years (start years) and study design	Sample size at baseline	Sample size at follow-up	Mean onset age in years	Definition of DUP	Mean (SD) <sup>a</sup> DUP in weeks	Outcome measures	Percentage of subjects diagnosed with schizophrenia	Quality score
	clinical sample				and initial visit at a medical facility		relapse and complete remission with relapse vs. poor outcome= incomplete remission without relapse or with relapse and continuous psychotic illness)		
Kaymak et al. 2012 (Turkey)	11.1 - Retrospective clinical sample	-	162	24.6	Time between first psychotic symptoms and antipsychotic treatment	26	General symptomatic outcome (PANSS <sup>c</sup> , CGI <sup>v</sup> ) Positive and negative symptoms Hospital treatments (hospitalisation) Global outcome (GAF <sup>k</sup> ) Other (Suicides)	100%	12
Keshavan et al. 2003 (USA)	2 - Prospective clinical sample	104	55-68	26.8	Time between psychotic symptoms and admission into study	96 (163)	Global outcome (GAF <sup>k</sup> and Strauss-Carpenter Outcome Scale)	61%	15
Kurihara et al. 2011 (Indonesia)	17 (1990-1991) Prospective clinical sample	59	43	26.5 at entry	Time between onset of psychotic symptoms and psychiatric treatment	127 (235)	Global outcome (combined symptomatic and functional remission) Other (mortality)	100%	16
Norman et al. 2005 <sup>w</sup> (Canada)	3 (1997-2001) Prospective clinical sample	156	113	25.8	Time between initial onset of psychosis and treatment (active psychotic symptoms)	70 (-)	Hospital treatments (admissions)	61%	17
Norman et	5 (1997-2002)	188	132	23.8	Time between	67	Positive symptoms (remission and SAPS <sup>j</sup> )	63%	19

Reference (country)	Follow-up in years (start years) and study design	Sample size at baseline	Sample size at follow-up	Mean onset age in years	Definition of DUP	Mean (SD) <sup>a</sup> DUP in weeks	Outcome measures	Percentage of subjects diagnosed with schizophrenia	Quality score
al. 2012 <sup>w</sup> , Malla et al. 2006 Manchanda et al. 2005 Norman et al. 2007	Prospective clinical sample				onset of psychosis and antipsychotic treatment	(109)	global) Negative symptoms (remission and SANS <sup>e</sup> global) Social functioning (SOFAS <sup>p</sup> ) Employment (weeks on disability pension and full-time occupation) Remission (Andreasen et al. 2005)		
Penttilä et al. 2013 (Finland) Penttilä et al. 2010	11-~20 (~1980) Register-based study (birth cohort with prospective and retrospective data collection)	111	47-89	21.9	Time between onset of psychosis (PANSS <sup>c</sup> score of at least 4) and adequate treatment (medication or hospitalization)	32 (47)	General symptomatic outcome (PANSS <sup>c</sup> and CGI <sup>v</sup> ) Positive and negative symptoms (PANSS <sup>c</sup> ) Hospital treatments (hospitalizations) Social functioning (SOFAS <sup>p</sup> ) Employment (disability pension and rate of employment) Global outcome (Symptoms, employment and hospitalisations combined) <sup>x</sup> Quality of life <sup>x</sup> Remission (Andreasen et al. 2005)	100%	17
Primavera et al. 2012 (Italy)	25.2 (2011) Retrospective clinical sample	115	80	24.9	Time between onset of first clear psychotic symptoms and first antipsychotic treatment	213 (-)	General symptomatic outcome (course of illness, favourable vs. unfavourable) Hospital treatments (three variables: number of hospitalization and mean and categorized, low number) Global outcome (GAF <sup>k</sup> ) Other (suicide attempts)	100%	13

Reference (country)	Follow-up in years (start years) and study design	Sample size at baseline	Sample size at follow-up	Mean onset age in years	Definition of DUP	Mean (SD) <sup>a</sup> DUP in weeks	Outcome measures	Percentage of subjects diagnosed with schizophrenia	Quality score
Rangaswamy et al. 2012 (India)	2 (2007-2008) Prospective clinical sample	103	38	27.3	Time between first psychotic symptom and adequate treatment	126 (166)	Global outcome (single episode followed by total remission for 2 years, relapses followed by remissions, and a continuous illness PANSS <sup>c</sup> and GAF <sup>k</sup> )	63%	16
Rosen and Garety 2005 (UK)	6-19 (1980-91) Register-based study (retrospective)	436	283	28.8	Time between appearance of positive psychotic symptoms and medication	19 (62)	General symptomatic outcome (single episode versus others and better vs. worse outcome)	Not reported, schizophrenia spectrum 100%	9
Röpcke and Eggers 2005 (Germany)	15 (1979-88) Prospective clinical sample	55	39	16.0	Time between first psychotic symptoms and first antipsychotic treatment	41 (-)	General symptomatic outcome (PANSS <sup>c</sup> , CGI <sup>v</sup> ) Positive and negative symptoms (PANSS <sup>c</sup> ) Global outcome (GAS <sup>f</sup> )	80% (Early onset schizophrenia)	16
Selten et al. 2007 (Netherlands)	2.5 (1997-99) Prospective clinical sample	181	100-125	-	Time between first psychosis and antipsychotic medication	-	Global outcome (poor outcome (continuous psychotic illness and/or GAF <sup>k</sup> <39) vs. not poor outcome)	Not reported, schizophrenia spectrum 100%	15
Shrivastava et al. 2010 (India)	10 (1993-97) Prospective clinical sample	200	101	28.8	Unspecified (included positive symptoms, negative symptoms and social decline)	52 (32)	General symptomatic outcome (PANSS <sup>c</sup> and clinical recovery) Positive and negative symptoms (PANSS <sup>c</sup> ) Hospital treatments (>1 hospitalisation in past 10 years) Social Functioning (abnormal social functioning, independent living)	100%	13



Reference (country)	Follow-up in years (start years) and study design	Sample size at baseline	Sample size at follow-up	Mean onset age in years	Definition of DUP	Mean (SD) <sup>a</sup> DUP in weeks	Outcome measures	Percentage of subjects diagnosed with schizophrenia	Quality score
							Employment (work abnormal) Global outcome (GAF <sup>k</sup> ) Quality of life (QLS <sup>d</sup> ) Other (HDRS <sup>l</sup> , Disorganisation)		
Üçok et al. 2011 (Turkey)	4.9 - Prospective clinical sample	125	94	19.8	Time between first positive symptoms and adequate antipsychotic treatment	33 (42)	Remission (remission vs. non-remission, predictors of remission and time to remission (Andreasen et al. 2005))	100%	15
Verma et al. 2012 (Singapore)	2 (2001-2008) Prospective clinical sample	1175	776	28	Time between first psychotic symptoms and establishment of treatment	69.4	Global outcome (recovery and GAS <sup>f</sup> ) Remission (Andreasen et al. 2005)	Not reported, schizophrenia spectrum 76.6%	16
White et al. 2009 (UK)	10 (1986-88) Prospective clinical sample	109	49	27.2	Time between first positive psychotic symptoms and treatment with antipsychotics	25 (36)	General symptomatic outcome (outcome symptom burden of positive and negative symptoms from the SAPS <sup>j</sup> and SANS <sup>e</sup> , GAF <sup>k</sup> symptom scores, and life-chart: recent negative symptoms) Hospital treatments (service dependency defined as independent living, time in hospital and number of admissions) Global outcome (functional outcome defined by GAF <sup>k</sup> disabilities, SADS-L <sup>y</sup> items 969, 970 and life-chart scores for work record and pension receipt)	82%	15
Wiersma	15 (1977-78)	496	195	-	Time between onset	10 (-)	Social functioning (WHO disability)	Not reported ,	11

Reference (country)	Follow-up in years (start years) and study design	Sample size at baseline	Sample size at follow-up	Mean onset age in years	Definition of DUP	Mean (SD) <sup>a</sup> DUP in weeks	Outcome measures	Percentage of subjects diagnosed with schizophrenia	Quality score
et al. 2000 (Europe. 6 centres in Bulgaria, Germany, Ireland, Netherlands, Czech and UK)	Prospective clinical sample				of psychotic symptoms and first contact with a mental health professional		assessment scale)	schizophrenia spectrum 100% without a duration criterion	
Vyas et al. 2007 (UK)	4 - Prospective clinical sample	40	23	15.2	Time between age of onset and age at initiation of antipsychotic treatment	13 (16)	Social functioning (total SASS <sup>2</sup> score) Global outcome (GAF <sup>k</sup> )	100% (early onset schizophrenia)	10
Ya-Juan et al. 2006 (China)	4 - Prospective clinical sample	164	111	29	Not reported	78(77)	General symptomatic outcome (relapse vs. non-relapse)	100%	7

<sup>a</sup> SD= standard deviation; <sup>b</sup> Same sample from Calgary, Canada; <sup>c</sup> PANSS= Positive and Negative Syndrome Scale; <sup>d</sup> QLS= The Quality of Life Scale; <sup>e</sup> SANS= Scale for the Assessment of Negative Symptoms; <sup>f</sup> GAS =Global Assessment Scale; <sup>g</sup> BPRS= Brief Psychiatric Rating Scale; <sup>h</sup> Same sample from Hong Kong; <sup>i</sup> CGI-S= The Clinical Global Impression-Severity of Illness Scale; <sup>j</sup> SAPS= Scale for the Assessment of Positive Symptoms; <sup>k</sup> GAF =Global Assessment of Functioning Scale; <sup>l</sup> HDRS= Hamilton Depression Rating Scale; <sup>m</sup> BHS= The Beck Hopelessness Scale; <sup>n</sup> Same sample from Poland; <sup>o</sup> SFS=The Social Functioning Scale; <sup>p</sup> SOFAS= the Social and Occupational Functioning Scale; <sup>q</sup> C-GAS= The Children's Global Assessment Scale; <sup>r</sup> MIRECC-GAF= Mental Illness Research, Education and Clinical centre version of the Global Assessment of Functioning Scale; <sup>s</sup> Same sample from Japan; <sup>t</sup> DAS= The Disability Assessment Scale; <sup>u</sup> Results obtained from congress abstract by Kinoshita et al. 2012; <sup>v</sup> CGI= The Clinical Global Impression; <sup>w</sup> Same sample from Ontario, Canada; <sup>x</sup> Unpublished results of the sample (quality of life from 15D questionnaire); <sup>y</sup> SADS-L =Schedule for Affective Disorders and Schizophrenia, lifetime; <sup>z</sup> SASS Social Adaptation Self-Evaluation Scale.



**Table DS2** Quality assessment scores of included studies.

Reference	Case Ascertainment	Diagnosis	Method of diagnostic assignment	Method of outcomes assignment	Definition of DUP	Number of total sample unambiguously described	Dropout rate described and at most 30%	Sample and methods clearly described	Results clearly presented	Diagnosis confirmed at follow-up	Results for reliability reported for outcomes assessments	Results for reliability reported for DUP
Addington et al. 2004 <sup>1</sup>	2	2	2	4	4	1	0	1	1	0	1	1
Addington and Addington 2008 <sup>1</sup>	2	2	2	4	3	1	0	1	1	0	0	0
Altamura et al. 2001	2	2	1	1	0	1	0	0	1	0	0	0
Ayesa-Arriola et al. In press	2	2	2	4	3	1	1	1	1	0	0	0
Boden et al. 2009	2	2	1	4	0	1	0	1	0	1	1	0
Bottlender et al. 2003	1	2	2	4	3	1	1	1	1	0	1	0
Cechnicki et al. 2011	1	2	0	4	0	1	1	0	0	0	0	0

Chang et al. 2011 <sup>3</sup>	2	2	2	4	4	1	0	1	1	1	1	0
Chang et al. In press <sup>3</sup>	2	2	2	4	4	1	0	1	1	1	1	0
Chang et al. 2012	2	2	2	4	3	1	0	1	0	1	1	1
Craig et al. 2000	1	2	2	4	3	1	0	1	0	1	0	0
de Haan et al. 2003	2	2	1	2	3	0	0	1	0	0	1	0
Gorna et al. 2008 <sup>4</sup>	1	2	0	4	0	1	1	0	0	0	0	0
Jaracz et al. 2007 <sup>4</sup>	1	2	0	4	3	1	1	0	1	0	0	0
Jaracz et al. 2012 <sup>4</sup>	1	2	1	4	3	1	0	0	1	0	0	0
Harris et al. 2005	2	2	1	4	3	1	0	0	0	0	1	1
Hassan and Taha 2011	1	2	2	4	0	1	0	1	1	0	0	0
Hill et al. 2012	2	2	2	4	4	1	1	1	1	0	1	1

Ichinose et al. 2010 <sup>5</sup>	2	2	1	4	3	1	0	1	1	0	0	0
Kinoshita et al. 2005 <sup>5</sup>	2	2	1	1	3	1	0	1	0	0	0	0
Kaymak et al. 2012	2	2	1	4	3	0	0	0	0	0	0	0
Keshavan et al. 2003	2	2	2	4	3	1	0	0	1	0	0	0
Kurihara et al. 2011	1	2	2	4	3	1	1	1	0	1	0	0
Hegelstad et al. 2012	2	2	2	4	3	1	0	1	1	1	1	1
Norman et al. 2005 <sup>6</sup>	2	2	2	4	3	0	0	1	1	0	1	1
Norman et al. 2012 <sup>6</sup>	2	2	2	4	4	1	0	1	1	0	1	1
Penttilä et al. 2013	2	2	2	4	2	1	0	1	1	1	0	1
Primavera et al. 2012	1	2	2	3	2	1	0	1	0	1	0	0
Rangaswamy et al. 2012	1	2	2	4	3	1	0	1	0	1	1	0

Rosen and Garety 2005	2	2	1	1	2	0	0	1	0	0	0	0
Röpcke and Eggers 2005	1	2	2	4	4	1	0	1	0	1	0	0
Selten et al. 2007	2	2	1	3	4	1	0	1	0	1	0	0
Shrivastava et al. 2010	1	2	0	4	3	1	0	0	1	1	0	0
Üçok et al. 2011	1	2	2	4	3	1	1	0	0	0	1	0
Verma et al. 2012	2	2	2	4	3	1	0	0	1	0	1	0
White et al. 2009	1	2	2	4	3	1	0	1	0	1	0	0
Wiersma et al. 2000	0	2	0	4	3	1	0	0	0	1	0	0
Vyas et al. 2007	0	2	2	3	0	1	0	1	1	0	0	0
Ya-Juan et al. 2006	1	2	0	3	0	1	0	0	0	0	0	0

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**Table DS3** The estimated effect sizes (correlations) between duration of untreated psychosis and different outcomes in the original studies. Negative correlation indicates that long DUP associates with poor outcome and positive correlation indicates correlation of long DUP and better outcome.

Reference	Positive symptoms	Negative symptoms	General symptomatic outcome	Remission	Hospital treatments	Social functioning	Employment	Global outcome	Quality of life	Original effect measures used for transformation of correlations and used covariates
Addington et al. 2004 <sup>1</sup>	-0.17	0.11							-0.20	Pearson's r
Addington and Addington 2008 <sup>1</sup>				-0.27						Estimated from F
Altamura et al. 2001					-0.41 <sup>2</sup>					Pearson and t-test
Ayesa-Arriola et al. In press						-0.15				From means and SDs
Boden et al. 2009	-0.08	-0.20	-0.24	-0.15		-0.18			-0.06	Correlations and estimated from medians and IQR and OR
Bottlender et al. 2003	-0.34	-0.255 <sup>2</sup>						-0.38 <sup>2</sup>		Estimated from F, adjusted with mode of onset
Cechnicki et al. 2011	-0.28	-0.07	-0.22 <sup>2</sup>		-0.22 <sup>2</sup>					Estimated from F
Chang et al. 2011 <sup>3</sup>		-0.24								Estimated from t-test



Chang et al. In press <sup>3</sup>	-0.06								From means and SDs.
Chang et al. 2012	-0.2 <sup>2</sup>	0.00 <sup>2</sup>	-0.26			0.00			From chi-square,
Craig et al. 2000	-0.06	-0.07	-0.13		0.16			0.12	Estimated from F and chi-square, hospital treatments and remission estimated directions
de Haan et al. 2003	0.00	-0.26			-0.18	0.00 <sup>2</sup>	-0.04 <sup>2</sup>	0.00	Spearman and chi-square, directions not given for chi-square, estimated as 0.00
Gorna et al. 2008 <sup>4</sup>							-0.19	0.00	From beta, employment adjusted
Jaracz et al. 2007 <sup>4</sup>						-0.47			Spearman
Jaracz et al. 2012 <sup>4</sup>				-0.25					From means and SDs.
Harris et al. 2005	-0.26	-0.14				-0.26		-0.18	Estimated from total variance ( $R^2$ )
Hassan and Taha 2011	-0.177	-0.109		-0.284				-0.075	Spearman and from means and SDs
Hegelstad et al. 2012	-0.06	0.03	-0.05	-0.18	-0.01	-0.13	-0.15	-0.13	Correlations

Hill et al. 2012	-0.29	-0.29	-0.22	-0.16		-0.28 <sup>2</sup>	-0.10	-0.265 <sup>2</sup>	-0.32	Remission adjusted OR, other correlation coefficients
Ichinose et al. 2010 <sup>5</sup>	-0.64 <sup>6</sup>	-0.61 <sup>6</sup>				-0.63		-0.65 <sup>2</sup>		Estimated from p-values and means and SDs
Kinoshita et al. 2005 <sup>5</sup>			-0.33 <sup>2</sup>							
Kaymak et al. 2012	0.05	-0.34	-0.21		-0.22			-0.23		Correlations unspecified
Keshavan et al. 2003								-0.24 <sup>2</sup>		Pearson
Kurihara et al. 2011								-0.23		Odds ratio
Norman et al. 2005 <sup>7</sup>					0.19					Correlation
Norman et al. 2012 <sup>7</sup>	-0.19 <sup>2</sup>	-0.205 <sup>2</sup>		-0.14		-0.26	-0.18 <sup>2</sup>			Pearson
Penttilä et al. 2013	-0.15	0.02	-0.01	-0.05	0.08	0.13	0.155	0.10 <sup>8</sup>	0.02 <sup>8</sup>	From t, Beta and chi-square
Primavera et al. 2012			-0.22		-0.415 <sup>2</sup>			-0.41 <sup>2</sup>		From t-test and Chi-square
Rangaswamy et al. 2012								-0.57 <sup>2</sup>		Chi-square and t-test

Rosen and Garety 2005			-0.183 <sup>2</sup>						Relapses From z and chi-square
Röpcke and Eggers 2005	0.00	0.00	0.00					0.00	Adjusted with type of onset, premorbid adjustment, gender and duration of first inpatient treatment
Selten et al. 2007								-0.20	From median (IQR)
Shrivastava et al. 2010	0.12	0.09	0.125 <sup>2</sup>	0.06	-0.063 <sup>2</sup>	0.16	0.12	0.12	From t-test and chi-square
Üçok et al. 2011					-0.053 <sup>2</sup>				Stand beta
Verma et al. 2012					0			0 <sup>2</sup>	Odds ratio
White et al. 2009			-0.28	0.00				0.00	Total symptoms adjusted with neurological soft signs, From t-test
Wiersma et al. 2000								-0.10	Estimated from spearman <.20
Vyas et al. 2007								-0.30	Pearson
Ya-Juan et al. 2006			0.00						Estimated

<sup>1</sup> Same sample from Calgary, Canada; <sup>2</sup> Combined from two or more different variables; <sup>3</sup> Same sample from Hong Kong; <sup>4</sup> Same sample from Poland <sup>5</sup> Same sample from Japan; <sup>6</sup> Results obtained from congress abstract by Kinoshita et al. 2012; <sup>7</sup> Same sample from Ontario, Canada; <sup>8</sup> Unpublished results  
Correlations of non-significant results estimated as 0.00.

**Table DS4** Statistically significant results of the additional analyses for the effect of covariates.

	<b>Outcome category</b>	<b>Number of studies</b>	<b>t</b>	<b>p</b>
Length of follow-up	Negative symptoms	18	-2.31	0.035
	Hospital treatments	11	-2.31	0.046
	Global outcome	19	-2.28	0.035
Dropout percentage	None significant			
Mean DUP	None significant			
Gender distribution	None significant			
Proportion of subjects with schizophrenia	None significant			
Mean onset age	None significant			
Study design	None significant			
Income level of the country	Positive symptoms	18	-2.70	0.016
	General symptomatic outcome	15	-3.12	0.008