

Data supplement

Table DS1 Study characteristics		Prior admissions in control/experimental group		In-patient population		Setting		Intervention		Sample size, control/experimental group		Duration		EPOC score ^a		Follow-up, months		Base rate, %		ARR, %	
Randomised controlled trials																					
Study (year)																					
Chiverton <i>et al</i> (1999) ²⁸	Any	NR	USA	Trained nurses providing post-discharge telephone and home visit support to patients using individualised care pathways; education to family and community support providers	122/121	Up to 12 weeks	5	3	13.1	-6.13											
Shaw <i>et al</i> (2000) ²⁵	Mood or psychosis	64% ≥ 1	USA	Pharmacy discharge planning with bridge to community pharmacist and continual needs assessment of patient bridging transition	46/51	At discharge	5	3	26	-16**											
Beebe (2001) ²⁰	Schizophrenia	5.84 ^d	USA	Weekly telephone calls to patient post-discharge by RN (average 10 min); RN followed a structured protocol to enquire about symptoms, recent follow-up, medication difficulties and enquire about other concerns	15/22	12 weeks	4	3	23.0	-10											
Reynolds <i>et al</i> (2004) ²⁹	Schizophrenia	NR	Finland Scotland	Transitional discharge model: peer support and in-patient RN staff work comprehensively with out-patients until relationship with community provider well established (as evaluated by a complex set of relationship questionnaires)	14/11	Up to 20 weeks	5	5	35.7	-17.5											
Forchuk <i>et al</i> (2005) ³⁰	Any	2.5/2.1	Canada	Transitional discharge model as above, but with addition of telephone contact and specific efforts to ensure community follow-up (no patient hotline)	109/201	Up to 52 weeks	6	12	NR	-7.0 days***e											
Wirshing <i>et al</i> (2006) ²¹	Schizophrenia/ schizoaffective	NR	USA	Community re-entry programme: psychosocial module of the social and independent living skills series for individuals with schizophrenia	28/29	Pre-discharge (8 h)	3	12	31	-7.0*											
Xiang <i>et al</i> (2007) ²²	Schizophrenia	1.9/2.2	China	Standardised structured social skills training with specific focus on transitioning	50/53	Pre-discharge (16 h)	7	6	4	-4.0											
Dixon <i>et al</i> (2009) ²³	Psychosis, major depressive disorder, bipolar disorder	NR	USA	Community re-entry module (Chinese version). Compared with group psychoeducation, with option for post-discharge workshops in both groups	71/64	12 weeks	8	6	69.0	-6											
Controlled studies (non-randomised)																					
Karniel-Lauer <i>et al</i> (2000) ¹⁹	Any	NR	Israel	Critical time intervention: case managers provide time-limited support, assess resources for the transition, identify potential crises, monitor treatment plans and focus on transfer of care (brief version)	33/42	6 weeks	4	3	24.2	-17.1											
Cuffel <i>et al</i> (2002) ²⁷	Any	Past year: 1. 19% 2. 18% 3. 20%	USA	Structured psychoeducational weekly post-discharge groups: focus on symptoms, medications, relationships and vocational rehabilitation	192/31 192/94	24 h 2 weeks	4	12	39.4	-24.8*											
Kasprow & Rosenheck (2007) ²⁶	Any, at risk for homelessness	NR	USA	3 levels of case management, with comparison to a cohort in previous year	278/206	Median 28 weeks	3	12	26.3 days ^f	-3.8*											
				1. Usual care (telephone call 24 h after discharge)	192/31	24 h		6	1.9 days ^g	0.6 ^e											
				2. Enhanced (repeat calls to ensure out-patient follow-up)	192/94	2 weeks				-0.6 ^e											
				3. Intensive (calls patient and review with out-patient clinician)	192/74	24 weeks				-0.3 ^e											

(continued)

Table DS1 Study characteristics (continued)											
Study (year)	In-patient population	Prior admissions in control/experimental group		Setting	Intervention	Sample size, control/experimental group		EPOC score ^a	Follow-up months	Base rate, ^b %	ARR, ^c %
		in control/ experimental group	in experimental group			control/ experimental group	experimental group				
Controlled studies (non-randomised) Price (2007) ²⁴	Schizophrenia	Diagnosis within past 5 years	USA	Transition to community programme: RN provides in-patient discharge assessment, reports information to community case managers; pre-paid cell telephones given to patients with instructions to call if needed	6/7	6/7	5	2	10.3 days ^e	-6.3 ^e	
Schmidt-Kraepelin <i>et al</i> (2009) ¹⁶	Schizophrenia/schizoaffective	≥ 1 in past 2 years	Germany	Out-patient psychiatrists arrange complex intervention guided by treatment guideline software. Research team arranged for treatment to be obtained	47/46	47/46	3	12	64	-37*	
Cohort studies											
Olfson <i>et al</i> (1998) ¹⁸	Schizophrenia/schizoaffective	68%/54% with ≥3	USA	Pre-discharge telephone or face-to-face contact with out-patient clinician	51/53	51/53	5	3	25.5	-8.2	
Prince (2006) ¹⁷	Schizophrenia/schizoaffective	NR	USA	Interventions delivered in the course of post-discharge care (by patient report)			5	3			
				1. Medication education	45/218	45/218			31.1	-8.2	
				2. Symptom education	50/213	50/213			36.0	-14.4* ^g	
				3. Service continuity	54/209	54/209			35.2	-13.7 ^g	
				4. Social skills	109/154	109/154			27.5	-5.4	
				5. Daily living	127/136	127/136			26.0	-3.2	
				6. Structure	70/193	70/193			34.3	-13.6* ^g	
				7. Family	80/161	80/161			25.0	-1.4	

EPOC, Cochrane Effective Practice and Organisation of Care; ARR, absolute risk reduction; NR, not reported; RN, registered nurse.

a. Maximum score 9.
b. Control group readmission rate.
c. Absolute risk reduction – in percentage points unless otherwise specified.
d. Mean for total sample.
e. Results tabulated for mean days in hospital during follow-up.
f. Least mean squares estimate.
g. Statistically significant on multivariable analysis accounting for potential confounding factors.
Statistically significant result at * $p < 0.05$, ** $P = 0.065$.

Table DS2 Cochrane Effective Practice and Organisation of Care (EPOC) quality assessments^a

Study (year)	Randomisation		Allocation		Baseline outcome measurements similar		Baseline characteristics similar		Missing data addressed (if applicable)		Outcome assessment blind or by objective measure		No selective outcome reporting	Free of other risk of bias	EPOC score ^a
	well described	concealed	concealed	similar	similar	similar	similar	similar	similar	similar	similar	similar			
Randomised controlled trials															
Chiverton <i>et al</i> (1999) ²⁸	Unclear	No	No	Unclear	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	5
Shaw <i>et al</i> (2000) ²⁵	Yes	No	No	Yes	Yes	Unclear	No	Unclear	No	Yes	Unclear	Yes	Yes	Yes	5
Beebe (2001) ²⁰	No	Unclear	Unclear	Yes	Yes	Yes	Yes	No	No	No	No	Yes	No	No	4
Reynolds <i>et al</i> (2004) ²⁹	Yes	No	No	Yes	Yes	No	No	No	No	Yes	No	Yes	Yes	Yes	5
Forchuk <i>et al</i> (2005) ³⁰	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Unclear	Yes	Yes	Yes	Yes	Unclear	6
Wirshing <i>et al</i> (2006) ²¹	No	Unclear	Unclear	Unclear	Yes	Unclear	Yes	Yes	No	Yes	Yes	Yes	Yes	No	3
Xiang <i>et al</i> (2007) ²²	No	Unclear	Unclear	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	7
Dixon <i>et al</i> (2009) ²³	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	8
Controlled clinical trials															
Karniel-Lauer <i>et al</i> (2000) ¹⁹	Unclear	Unclear	Unclear	Yes	Yes	Yes	Yes	Yes	No	Unclear	Unclear	Yes	Yes	Unclear	4
Cuffel <i>et al</i> (2002) ²⁷	No	No	No	Yes	Yes	Unclear	Yes	Unclear	Unclear	Yes	Yes	Yes	Yes	No	4
Kasprow & Rosenheck (2007) ²⁶	No	No	No	Unclear	Unclear	Yes	Yes	Yes	No	Yes	Unclear	Yes	Yes	No	3
Price (2007) ²⁴	Unclear	No	No	Unclear	Unclear	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	5
Schmidt-Kraepelin <i>et al</i> (2009) ¹⁶	No	No	No	No	No	No	No	No	Yes	Unclear	Unclear	No	Yes	Yes	3
Cohort studies															
Olfson <i>et al</i> (1998) ¹⁸	No	No	No	Yes	Yes	Yes	Yes	Yes	Unclear	Unclear	Unclear	Yes	Yes	Yes	5
Prince (2006) ¹⁷	No	No	No	Yes	Yes	Unclear	Unclear	Unclear	Yes	Yes	Yes	Yes	Unclear	Yes	5

a. Using the EPOC group's risk of bias criteria.¹⁴ Studies were assessed for the risk of bias relevant to the outcome stated in this review (readmission). The maximum EPOC score is 9.