Risperidone versus olanzapine for people with schizophrenia: a **Cochrane systematic review** M Jayaram¹, P Hosalli¹, CE Adams² ¹Leeds Mental Health Trust, Leeds, UK ² Cochrane Schizophrenia Group, University of Leeds, UK

Background

Risperidone and olanzapine are the most commonly used atypical antipsychotics for treating schizophrenia.

Objectives

Results 2. Outcomes

Global outcomes: reported 7 different ways. Mental state outcomes: reported 14 different ways (6 scales, different units used in different studies).

Death was reported in only three studies.

Adverse effects

Of insomnia Of isomnia Catle 2005 83/341 55/336 Conley 2001 45/188 35/189 Jeste 2003 14/87 9/88 Jones 1998 (P022) 6/21 5/21 Jones 1998 (P022) 6/21 5/21 Victoral (S% C) 795 793 Total events: 184 (Risperidone), 130 (Okenzapine) 100.00 1.41 (1.15, 1.72) Test for overall effect Z = 3.33 (P = 0.009) 22.129 6.00 (0.31, 115.56 O2 abnormal ejaculation 0/17 78.71 4.12 (1.18, 14.34) Joutoda (S% C) 12/167 3/172 78.71 4.12 (1.18, 14.34) Voltoda (S% C) 181 189 100.00 4.36 (1.38, 13.76) Test for overal effect Z = 2.51 (P = 0.01) 3/167 25.132 0.60 (0.21, 1.69) Weight - any gain 25.03 0.60 (0.21, 1.69) 100.00 0.61 (0.41, 0.91) Odal events: 36 (Risperidone), 59 (Okenzapine) 385 396 100.00 0.61 (0.41, 0.91) O3 weight - any gain 25.33 0.60 (0.21, 1.69) 3.24 (1.40, 0.26, 0.89) 100.00 0.61 (0.41, 0.91) <td< th=""><th>Study</th><th>Risperidone</th><th>Olanzapine</th><th>RR (random)</th><th>Weight</th><th>RR (random)</th></td<>	Study	Risperidone	Olanzapine	RR (random)	Weight	RR (random)
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Subtotal (95% Cl) 488 496 🌰 100.00 0.47 (0.36.0.61)	Conley 2001	22/188	47/189		47.89	0.47 [0.30, 0.75]
	Subtotal (95% CI)	488	496	•	100.00	0.47 [0.36, 0.61]

To compare the clinical effects of risperidone and olanzapine for people with schizophrenia and schizophrenialike psychoses.

Search strategy

- Cochrane Schizophrenia Group's Register (Sept 2005)
- References of all identified studies
- Janssen-Cilag Ltd and Eli Lilly & Co
- Authors of included studies

Criteria **Study methods** Randomised trials **Participants** People with schizophrenia or

Enormous efforts are still invested in recording data that are so poorly reported as to render them uninformative and clinically meaningless.

Global outcomes: no difference for outcome of unchanged or worse across 12 weeks (n=548, 2 RCTs, RR 1.00 CI 0.88 to 1.15).

For the outcome of relapse/rehospitalisation, people allocated olanzapine fared a little better than risperidone (NNT 13 CI 6 to 421).

	Risperidone versus olanzapine for schizophrenia 01 RISPERIDONE versus OLANZAPINE								
Outcome: (03 Global effect: 03. Relapse/hospitalisat	ion - by 52 weeks							
Study	Risperidone	Olanzapine	RR (random)	Weight	RR (random)				
or sub-category	n۸	nN	95% CI	%	95% CI				
Catie 2005	51/341	38/336	ALC: NO.	54.98	1.32 [0.89, 1.96]				

-

0.1 0.2 0.5 1 2 5 10

Favours Risperidone Favours Olanzapine

45.02

100.00

2.16 [1.31, 3.54]

1.65 [1.02, 2.66]

19/143

479

39/136

477

Namjoshi 2002

Total (95% CI)

Total events: 90 (Risperidone), 57 (Olanzapine)

Test for overall effect: Z = 2.05 (P = 0.04)

Test for heterogeneity: Chi² = 2.31, df = 1 (P = 0.13), l² = 56.7%

More than two thirds of people given either drug experienced an adverse event important enough to be recorded in a company-sponsored trial and about 20% of people in both groups experienced anticholinergic symptoms.

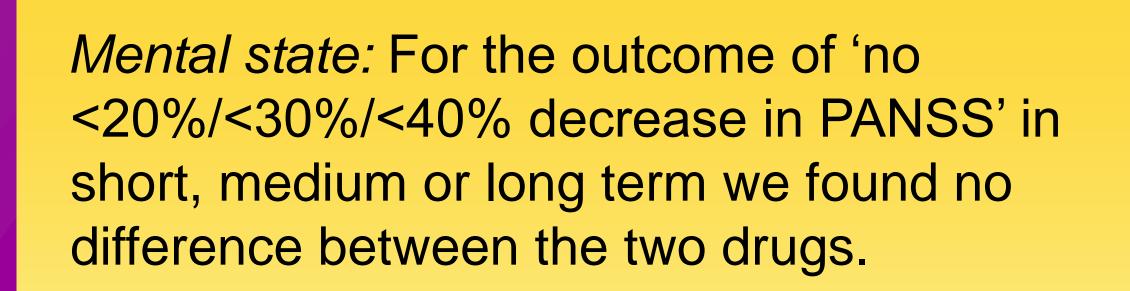
People given risperidone were more likely to experience insomnia (NNH 15 CI 9 to 41) and sexual dysfunction (abnormal ejaculation NNH 19 CI 5 to 167)

schizophrenia-like illnesses, diagnosed by any criteria **Interventions (oral form)** Risperidone any dose Olanzapine any dose



We independently inspected citations, extracted data and analysed within RevMan software.

We calculated relative risk (RR) (random effects model), 95% confidence interval (CI) and the number needed to treat (NNT) on an intention-to-treat basis.



For the outcome of 'no <50% decrease' in PANSS beyond 26 weeks the results just favoured olanzapine (n=339, 1 RCT, RR 1.11 CI 1.01 to 1.22, NNT 12 CI 6 to 127).

Both medications are associated with high

People given olanzapine were more likely to gain weight and this gain can be considerable and swift (more than 7% weight gain in < 12 weeks NNH 7 CI 6 to 10)

Discussion

Evaluative studies provide us with very little information regarding service outcomes, general functioning and behaviour, engagement with services and treatment satisfaction for these highly marketed drugs.

There is not much to differentiate between risperidone and olanzapine in terms of efficacy or inefficacy.

For both risperidone and olanzapine

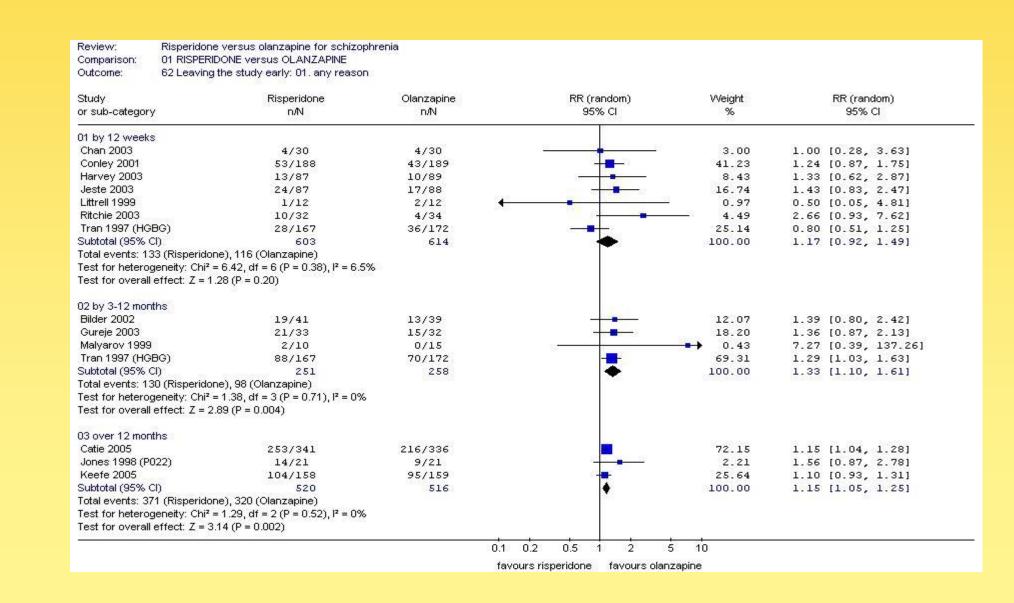
Results 1.

- Initial search identified 870 citations
- 137 related to 16 relevant studies

Participants Total – 1768 (Largest: CATIE 2005 – 673 people) Sex: Majority were men Age: Mean – late 30's to early 40's Setting: Inpatient and outpatient

Interventions Risperidone: 1.5 to 10 mg/day Olanzapine: 5 to 30 mg/day

attrition rates, however, risperidone participants were more likely to drop out by 12 months and beyond.



adverse effects 🙁 are common **is really differentiate these drugs** ⁽³⁾ are unpleasant and disabling

Reference

Jayaram MB, Hosalli P. Risperidone versus olanzapine for schizophrenia. The Cochrane **Database of Systematic Reviews 2005, Issue 2**

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