

Supplementary Material

Article Title: Prophylactic Antipsychotic Use for Postoperative Delirium: A Systematic Review and Meta-

Analysis

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DOI Number: 10.4088/JCP.13r08512

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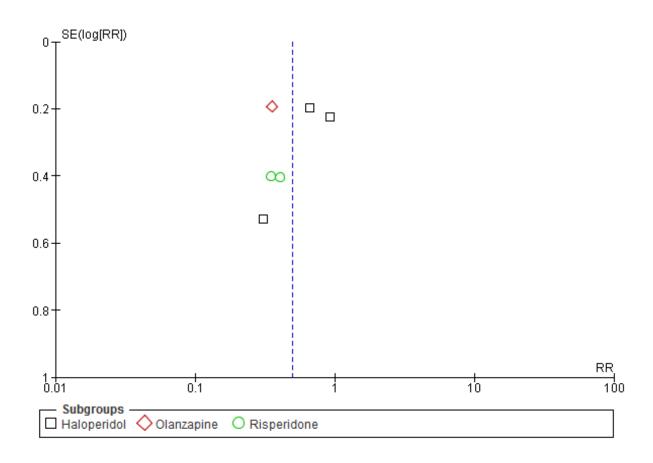
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	Hakim 2012	Kalisvaart 2005	Kaneko 1999	Larsen 2010	Prakanrattana 2007	Wang 2012
Incidence of delirium	✓	✓ DRS-R-98	✓	✓ DRS-R-98	✓	✓
Severity of delirium	ICDSC*	MAX		MAX		
Duration of delirium	\checkmark	✓*		✓*		
Length of ICU stay	\checkmark				✓	\checkmark
Hospital days	\checkmark	✓*		✓	✓	\checkmark
Discontinuation due to all cause Discontinuation due to side effects	✓	✓	✓	✓	✓	✓
	✓	✓	✓		✓	✓
Arrhythmia		✓	✓	✓		\checkmark
Extrapyramidal symptoms	✓	✓	✓		✓	✓

Supplementary eTable 1: Data synthesis

ICDSC: Intensive Care Delirium Screening Checklist, ICU: Intensive Care Unit, DRS-R-98 MAX:Delirium Rating Scale-Revised 98

^{*} completer analysis



Supplementary eFigure 1. Publication bias for Incidence of delirium

	Antip	sycho	otic	Placebo		Std. Mean Difference		Std. Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
1.5.1 Haloperidol									
Kalisvaart 2005 HAL 14 Subtotal (95% CI)	5.4	4.9	32 32	11.8	7.5	36 36	32.6% 32.6 %	-0.99 [-1.49, -0.48] - 0.99 [-1.49 , -0.48]	•
Heterogeneity: Not applica									
Test for overall effect: Z = 3	3.82 (P =	= 0.000	01)						
1.5.2 Olanzapine									
Larsen 2010 OLA 16 Subtotal (95% CI)	2.2	1.3	28 28	1.6	0.7	82 82	33.4% 33.4 %	0.67 [0.23, 1.11] 0.67 [0.23, 1.11]	•
Heterogeneity: Not applica Test for overall effect: Z =		= 0.003	3)						
1.5.3 Risperidone									
Hakim 2012 RIS 18	3	0.82	51	3.18	0.73	50	34.0%	-0.23 [-0.62, 0.16]	-
Subtotal (95% CI)			51			50	34.0%	-0.23 [-0.62, 0.16]	•
Heterogeneity: Not applica	ıble								
Test for overall effect: Z =	1.15 (P =	= 0.25)							
Total (95% CI)			111			168	100.0%	-0.18 [-1.06, 0.71]	
Heterogeneity: Tau ² = 0.56	6; Chi² =	24.07,	df = 2	(P < 0.0	00001)	$ 1^2 = 92$	2%	_	
Test for overall effect: Z =					,			Eav	-2 -1 0 1 2 ours experimental Favours control
Test for subgroup difference	ces: Chi²	= 24.0	07, df =	2 (P <	0.0000)1), l² =	91.7%	Tav	ours experimental if avours control

Supplementary eFigure 2. Duration of delirium. CI = confidence interval, HAL = haloperidol, OLA = olanzapine, RIS = risperidone

	Antip	sycho	otic	Placebo		Std. Mean Difference		Std. Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
1.7.1 Haloperidol									
Kalisvaart 2005 HAL 14 Subtotal (95% CI)	14.4	3.5	32 32	18.4	4.3	36 36	32.7% 32.7 %	-1.00 [-1.51, -0.50] -1.00 [-1.51, -0.50]	•
Heterogeneity: Not application	able								
Test for overall effect: Z =	3.88 (P	= 0.00	01)						
1.7.2 Olanzapine									
Larsen 2010 OLA 16 Subtotal (95% CI)	16.4	3.7	28 28	14.5	2.7	82 82	33.5% 33.5%	0.63 [0.20, 1.07] 0.63 [0.20, 1.07]	•
Heterogeneity: Not applicate Test for overall effect: Z =		= 0.00	5)						
1.7.3 Risperidone									
Hakim 2012 RIS 18 Subtotal (95% CI)	5.71	1.11	51 51	5.12	0.99	50 50	33.9% 33.9 %	0.56 [0.16, 0.95] 0.56 [0.16, 0.95]	•
Heterogeneity: Not applicate Test for overall effect: Z =		= 0.000	6)						
	(.	0.00	-,						
Total (95% CI)			111			168	100.0%	0.07 [-0.90, 1.04]	
Heterogeneity: Tau ² = 0.6	8; Chi ² =	28.46	df = 2	(P < 0.0)	00001)	$ I^2 = 93$	3%		-2 -1 0 1 2
Test for overall effect: Z =	0.15 (P	= 0.88))					F	avours experimental Favours control
Test for subgroup differen	ices: Chi ^a	$^{2} = 28.4$	46, df =	2 (P <	0.0000)1), l² =	93.0%	1	aroulo oxponinonai i aroulo ooniloi

Supplementary eFigure 3. Severity of delirium. CI = confidence interval, HAL = haloperidol, OLA = olanzapine, RIS = risperidone