NKR delir PICO 7 Behandling af delir med antiopsykotika

Review information

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Citation example: S. NKR delir PICO 7 Behandling af delir med antiopsykotika. Cochrane Database of Systematic Reviews [Year], Issue [Issue].

Contact person

[Empty name]

Dates

Assessed as Up-to-date:	
Date of Search:	
Next Stage Expected:	
Protocol First Published:	Not specified
Review First Published:	Not specified
Last Citation Issue:	Not specified

What's new

Date / Event	Description

History

Date / Event	Description

Characteristics of studies

Characteristics of included studies

Devlin 2010

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention ● *Age*: 62,4 (14) ● *Antal pt. med delir ved studiestart*: 100% Kontrol

	● *Age*: 63,6 (15.3) ● *Antal pt. med delir ved studiestart*: 100% **Included criteria:** April 2006-august 2008 adult patients admitted to the medical and surgical ICU at each institution with delirium diagnosed with the ICDSC, had an order for as-needed haloperidol and were tolerating enteral nutrition. **Excluded criteria:** History of irreversible cognitive dysfunctionAdmitted with a primary neurological condition or injuryHistory of hepatic encephalopathy or end-stage liver failure (Childs Pugh B or worse)Actively withdrawing from alcoholTreatment with an antipsychotic agent in the 30 days before ICU-admissionCurrent treatment with dexmedetomidine or neuromuscular blockerCurrent treatment with an agent having either the potential to affect the quetipine concentration or increase the risk of QTc prolongation.Baseline QTc > 500 msPregnancyNon-english speakingPresence of a condition preventing delirium assessmentPrognosis considered hopelessInformed consent could not be obtained from the legally authourized representative. **Pretreatment:** Væsentlig flere intuberede ved start i placebo gruppe og flere udsat for fentanyl og benzo i de sidste 24 timer. Flere kom hjemmefra i interventionsgruppe.
Interventions	**Intervention Characteristics** Intervention ● *Description*: Patients receive Quatipine, dosage 50mg every 12 hours (100mg /day) ● *Duration of intervention*: Pt. deliriumfri, udskrives fra ICU, oplever adverse events eller 10 dage. ● *Evt rescue-medication*: I.v. haloperidol 1-10 mg administered min 2 hours interval as-needed basis Kontrol ● *Description*: Patients receive placebo (50 mg NG twice a day - 12 hours interval) ● *Duration of intervention*: as for the IV group ● *Evt rescue-medication*: as for the IV group
Outcomes	*Død/mortality (Ved udskrivelse)* ● **Outcome type**: DichotomousOutcome ● **Reporting**: Fully reported *Genindlæggelser/readmissions (3 mdr FU)* ● **Outcome type**: ContinuousOutcome ● **Reporting**: Not reported *Fald/falls (Ved udskrivelse)* ● **Outcome type**: ContinuousOutcome ● **Reporting**: Not reported *Funktionsevne/physical function (ved udskrivelse)* ● **Outcome type**: ContinuousOutcome ● **Reporting**: Not reported *Angst/anxiety (Ved udskrivelse)* ● **Outcome type**: ContinuousOutcome ● **Reporting**: Not reported

	Ekstrapyramidale bivirkninger/extrapyramidal symptoms (Ved udskrivelse) ● **Outcome type**: DichotomousOutcome ● **Reporting**: Fully reported *Uro/restlessness (ved udskrivelse)* ● **Outcome type**: ContinuousOutcome ● **Reporting**: Not reported *SAE (Ved udskrivelse)* ● **Outcome type**: DichotomousOutcome ● **Reporting**: Fully reported *Død/mortality (3 mdr FU)* ● **Outcome type**: DichotomousOutcome ● **Reporting**: Not reported *Delirium severity (ved udskrivelse)* ● **Outcome type**: ContinuousOutcome ● **Reporting**: Partially reported ● **Scale**: DRS-S-98 ● **Range**: 0-46 ● **Direction**: Lower is better
Identification	**Sponsorship source:** Society of Critical Care Medicines; Critical Care Pharmacy research Award; Astra Zeneca Pharmaceuticals; Author grant support from Hospira **Country:** US **Setting:** Intensive care unit /critically ill **Comments:** **Authors name:** J.Devlin **Institution:** Northeastern University School of Pharmacy, Boston MA **Email:** j.devlin@neu.edu **Address:** Northeastern University School of Pharmacy, Boston MA
Notes	*Susanne Stabel Gren* on 07/06/2016 07:59 **Select** Placebokontrolleret RCT på ITA-ptt. Selvom det er en lille gruppe 36 skal det med *Jakob Carlsen* on 07/06/2016 18:51 **Select** Quetiapin med "ad-on" serenase. Lille, men relevant?! *Nkr 42 Delir* on 14/06/2016 22:42 **Outcomes** Indlæggelsestid (Ved udskrivelse) opgjort i median (interquartile range)Intervention: 24 (11-33)Kontrol: 26 (17-49)Delirvarighed (Ved udskrivelse) opgjort i median (interquartile range)Intervention: 36 (12-87) timerKontrol: 120 (60-195) *Henning Keinke Andersen* on 16/06/2016 22:09 **Outcomes** I assume the notified mortality rates (2 resp. 3) are at discharge from the hospital

	unit!

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Low risk	Judgement Comment: Computergenerated random number table
Other sources of bias	Low risk	Judgement Comment: Study seems to be free of other sources of bias
Blinding of outcome assessors	Unclear risk	Judgement Comment: Ej beskrevet hvem der vurderer. Desuden databehandling ej beskrevet om blinding.
Selective outcome reporting	Low risk	Judgement Comment: No study protocol available, but the outlined endpoints in the RCT are all reported.
Incomplete outcome data	Low risk	Judgement Comment: 36 pts randomised. Data were obtained from all 18 allocated pts in each group.
Allocation concealment	Unclear risk	Judgement Comment: Not enough details. 'Known to the investigator at each site'
Blinding of participants and personnel	Low risk	Judgement Comment: Patients blinded, no info on personnel

Hakim 2012

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention ● *Age*: 65-70 (70.6%) +70 (29.4%) ● *Delir ved studiets start*: 23.8% i begge grupper Kontrol ● *Age*: 65-70 (78%) +70 (22%) ● *Delir ved studiets start*: **Included criteria:** All patients 65 yr of age or older who were scheduled foron-pump cardiac surgery during the study period were con-secutively approached and screened through the cardiosurgi-cal preoperative assessment service to participate in this studyif they had no history of neuropsychiatric disorders, alcohol-ism, substance abuse, or intake of psychotropic medications **Excluded criteria:** Patients with a Mini Mental State Examina-tion score of less than 25 or a score of more than 4 on the15-item Geriatric Depression Scale were excluded, as werethose with impaired hearing or visual acuity, speech diffi-culty, or contraindication to risperidone or haloperidol suchas Parkinson's disease, history of neuroleptic malignant syn-drome, or prolonged QTc syndrome. Patients were also ex-cluded if they had history of cerebrovascular disease or ifother noncardiac procedures (e.g, carotid endarterectomy)were planned at the

	same setting **Pretreatment:** none
Interventions	**Intervention Characteristics** Intervention ● *Description*: 0,5 mg Risperidone / 12 hours, variable up to max 4.0 mg daily ● *Duration of intervention*: Indtil udskrivelse eller død i begge grp. ● *Evt. rescue medication*: Dosisøgning til 4 mg/dg, evt. haloperidol Kontrol ● *Description*: Placebo every 12 h ● *Duration of intervention*: ● *Evt. rescue medication*: hvis pt. fik rigtigt delir, fik de også risperidone i samme dosis.
Outcomes	*Død/mortality (ved udskrivelse)* ● **Outcome type**: DichotomousOutcome *Genindlæggelser/readmissions (3 mdr FU)* ● **Outcome type**: ContinuousOutcome *Fald/falls (Ved udskrivelse)* ● **Outcome type**: ContinuousOutcome *Funktionsevne/physical function (ved udskrivelse)* ● **Outcome type**: ContinuousOutcome *Angst/anxiety (Ved udskrivelse)* ● **Outcome type**: ContinuousOutcome *Ekstrapyramidale bivirkninger/extrapyramidal symptoms (Ved udskrivelse)* ● **Outcome type**: DichotomousOutcome *Uro/restlessness (ved udskrivelse)* ● **Outcome type**: ContinuousOutcome *SAE (Ved udskrivelse)* ● **Outcome type**: DichotomousOutcome *Død/mortality (3 mdr FU)* ● **Outcome type**: DichotomousOutcome ● **Reporting**: Not reported *Delirium severity (ved udskrivelse)* ● **Outcome type**: ContinuousOutcome
Identification	**Sponsorship source:** Support was provided solely from institutional and/or departmental sources **Country:** Egybt **Setting:** ICU post-cardiac on-pump surgery **Comments:** **Authors name:** Sameh M. Hakim **Institution:** Department of Anesthesiology, Faculty of Medicine, Ain Shams University, Cairo, Egypt **Email:** drsmichel@hotmail.com **Address:** Address correspondence to Dr. Hakim: 15 Gamal Nooh

	Street,Almaza, 11341 Cairo, Egypt.
Notes	*Susanne Stabel Gren* on 07/06/2016 07:38 **Select** Hjerteopererede relativt raske ældre (65+) beh. for truende? delir. Højrisikogrupper ekskluderet. Synes sikkert til raske, kan muligvis bruges til sikerhedsvurdering. RCT-studie db.blindet *Jakob Carlsen* on 08/06/2016 04:13 **Select** Lander ml. profylakse og behandling, men sjovt lille studie. *Lise Fonsmark* on 09/06/2016 03:53 **Select** Opfylder delvist krav til population, intervention og nogle outcomes. Ptt. har dog ikke vel udviklet delirium. *Nkr 42 Delir* on 14/06/2016 23:46 **Outcomes** Indlæggelsestid (ved udskrivelse) opgjort i median (interquartile range)Intervention: 6 (5-7)Kontrol: 6 (5-8)For patienter med delir:Intervention: 9 (7-10)Kontrol: 9 (8-10)Delirvarighed (ved udskrivelse) opgjort i median (interquartile range)Intervention: 3 (2-4)Kontrol: 3 (3-4)Delirium severity (højeste score på ICDSC) median (interquartile range)Intervention: 6 (5-7)Kontrol: 5 (4-5) *Henning Keinke Andersen* on 17/06/2016 00:16 **Outcomes** For deaths, it's not clear at what time the totla of 3 events occur!

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Low risk	Quote: "computer-generated random number list."
Other sources of bias	Low risk	Judgement Comment: Study seems free of other types of bias Stor del af mulige patienter med. Ej valideret metode til diagnostik af SSD.
Blinding of outcome assessors	Low risk	Quote: "The psychiatrist who attended to patients in the 4 h after identification of the condition with the ICDSC was blinded to the patient groups and used the Di- agnostic and Statistical Manual of Mental Disorders (DSM) criteria for diagnosis." Judgement Comment: It is noted that treatment concealment was maintained until recruitment, data collection, and analysis were completed.
Selective outcome reporting	Low risk	Judgement Comment: Outlined outcomes reported

Incomplete outcome data	Low risk	Quote: "Thus, all patients randomized to either treatment were analyzed, including those who did not complete the study protocol because of events such as death, second operation, or reinsti- tution of mechanical ventilation. Patients who initially were randomized to receive placebo and subsequently received ris- peridone for clinical delirium were analyzed according to their initial randomization group (i.e., placebo group). Like- wise, patients who were randomized to receive risperidone and subsequently received haloperidol as a second-line rescue medication were analyzed as randomized."
Allocation concealment	Low risk	Quote: "In the case of emergency, the en- velopes could be accessed and broken upon the request of the attending team. Otherwise, treatment concealment was maintained until recruitment, data collection, and analysis were completed." Judgement Comment: sealed envelope containg the allocation
Blinding of participants and personnel	Low risk	Quote: "The test drugs were prepared by the hospital's pharmacy and were identical in appearance and odor. The drugs were dis- pensed in identical containers sealed and numbered accord- ing to the computer-generated random number list."

Tahir 2010

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Intervention ● *Age*: 84.1 (9.45) ● *Delir ved studiets start*: 100% Kontrol ● *Age*: 84.3 (7.16) ● *Delir ved studiets start*: 100% **Included criteria:** Screening for delirium was conducted by daily contactwith medical, surgical and orthopedic wards at the UniversityHospital of Wales by a research assistant. An attempt wasmade to recruit those who met theDSM-IVcriteria fordelirium on the same day if they had a DRS-R-98 total scoreof 15 or more. **Excluded criteria:** Individuals with major pre-existing cognitivedeficits, alcohol withdrawal, pre-existing psychosis, sub-stance dependence, inability to comply with the constraints ofthe trial, or who were on medication that interacted withquetiapine were excluded from the study. The nature anddegree of any pre-existing cognitive deficits were determinedby reviewing clinical notes and by obtaining informationfrom a reliable informant. Informed consent was obtainedfrom participants with mental capacity. **Pretreatment:** none stated

Interventions	**Intervention Characteristics** Intervention ● *Description*: flexible dosing regime of 25 mg once daily oralquetiapine with dose titration of 25mg/day to a maximum daily dose of 175 mg in divided doses. ● *Duration of intervention*: Optitrering i max 10 dage. FU i 30 dage i begge grp. ● *Evt. rescue medication*: Tilsyneladende 4 ptt. i interventionsgrp. fået lorazepam Kontrol ● *Description*: Matching placebo dose tablet. ● *Duration of intervention*: ● *Evt. rescue medication*: ingen.
Outcomes	*Død/mortality (3 mdr FU)* ● **Outcome type**: DichotomousOutcome ● **Reporting**: Fully reported ● **Notes**: Kun 30 dages FU *Genindlæggelser/readmissions (3 mdr FU)* ● **Outcome type**: ContinuousOutcome *Fald/falls (Ved udskrivelse)* ● **Outcome type**: ContinuousOutcome *Funktionsevne/physical function (ved udskrivelse)* ● **Outcome type**: ContinuousOutcome *Angst/anxiety (Ved udskrivelse)* ● **Outcome type**: ContinuousOutcome *Ekstrapyramidale bivirkninger/extrapyramidal symptoms (Ved udskrivelse)* ● **Outcome type**: DichotomousOutcome ● **Reporting**: Fully reported *Uro/restlessness (ved udskrivelse)* ● **Outcome type**: ContinuousOutcome *SAE (Ved udskrivelse)* ● **Outcome type**: DichotomousOutcome *Delirium severity (ved udskrivelse)* ● **Outcome type**: ContinuousOutcome ● **Reporting**: Partially reported ● **Scale**: DRS-S-98 severity ● **Range**: 0-39 ● **Unit of measure**: point ● **Direction**: Lower is better ● **Data value**: Endpoint ● **Notes**: Ingen udskrivelsesværdi, kun værdi på dag 10 for alle patienter.

Identification	**Sponsorship source:** AstraZeneca UKsponsored the study and provided funding for a researchassistant, trial medication,and the randomization codes **Country:** UK **Setting:** Medical , surgical og orthopedic wards **Comments:** **Authors name:** Tayyeb A. Tahir **Institution:** Department of Liaison Psychiatry, University Hospital of Wales, Cardiff and Vale University Health Board, Heath Park, Cardiff, UK **Email:** tayyeb.tahir@wales.nhs.uk **Address:** Corresponding author. Department of Liaison Psychiatry, Room 124,1st Floor, Monmouth House, University Hospital of Wales, CF14 4XNCardiff, UK
Notes	*Jakob Carlsen* on 08/06/2016 05:15 **Select** Seroquel vs. placebo. *Susanne Stabel Gren* on 11/06/2016 18:30 **Included** DB.blindet RCT skal med *Henning Keinke Andersen* on 16/06/2016 23:10 **Outcomes** NB! Død er efter 30 dage og ikke 3 mdrExtrapyramidal symptoms reported as 'abnormal involuntary movements' (tolerability) p 488Why not death at discharge, reported in fig 1 (3 IV; 1 Placebo)?Går udfra ITT analyser

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Low risk	Quote: "Computer-generated randomization codes"
Other sources of bias	Unclear risk	Judgement Comment: Not quite sure whether the clinicians decision on dosage changes will affect the outcome. Probbably - therefore the 'unclear'
Blinding of outcome assessors	Unclear risk	Judgement Comment: Ej beskrevet
Selective outcome reporting	Low risk	Judgement Comment: The outlined outcomes are reported fully of partial. Primary outcome (DRS-R-98) is reported
Incomplete outcome data	Unclear risk	Quote: "To account for the noncompleters, due to various reasons given below, it was important to take into account missing data and the improvement in delirium with or without medication; we used non-linear, mixed-effects model to estimate differences in recovery trajectories between treatment groups. Initially, we considered models that allowed different starting and long-term mean values in the two treatment groups; however, no significant evidence of such differences was found." Judgement Comment: There is a substantial drop-out rate for each

		group (5/21 for IV - and 7/21 for placebo). And it is notified that the trial stopped at an early stage (p 489)
Allocation concealment	Low risk	Quote: "Computer-generated randomization codes were kept in sealed envelopes at the University Hospital of Wales' Pharmacy. In addition, a set of individual treatment codes was kept by the Scottish Poisons Information Bureau, Royal Infirmary Edin- burgh, for emergency out-of-hours use only."
Blinding of participants and personnel	Unclear risk	Judgement Comment: De beskriver ikke selve blindingsprocessen

Footnotes

Characteristics of excluded studies

Aizawa 2002

Reason for exclusion	Wrong intervention

Atalan 2013

Reason for exclusion	Wrong comparator

Bayindir 2001

Reason for exclusion	Wrong intervention

Boettger 2011

Reason for exclusion	Wrong comparator

Boettger 2011a

Reason for exclusion	Wrong study design

Breitbart 1996

Reason for exclusion	Wrong patient population

Breitbart 2002

Reason for exclusion	Wrong study design

Douglas 2008

Reason for exclusion	Wrong outcomes

Gill 2005

Reason for exclusion	Wrong study design

Girard 2010

Reason for exclusion	Wrong patient population

Grover 2011

Reason for exclusion	Wrong study design

Han 2001

Reason for exclusion	Wrong study design

Han 2004

Reason for exclusion	Wrong study design

Han 2009

Reason for exclusion	Wrong study design

Herrmann 2004

Reason for exclusion	Wrong study design

Horikawa 2003

Reason for exclusion	Wrong study design

Kalisvaart 2005

Reason for exclusion	Wrong patient population

Kaneko 1999

Reason for exclusion	Wrong patient population

Kim 2001

Reason for exclusion	Wrong study design

Kim 2003

Reason for exclusion	Wrong comparator

Kim 2005

Reason for exclusion	Wrong study design

Kim 2010

Reason for exclusion	Wrong study design

Kishi 2012

Reason for exclusion	Wrong study design

Lee 2005

Reason for exclusion	Wrong intervention

Lin 2004

Reason for exclusion	Wrong setting

Maneeton 2013

Reason for exclusion	Wrong intervention

Mittal 2004

Reason for exclusion	Wrong comparator

Miyaji 2007

Reason for exclusion	Wrong study design

Omura 2003

Reason for exclusion	Wrong study design

Pae 2004

Reason for exclusion	Wrong study design

Page 2013

Reason for exclusion	Wrong patient population

Parellada 2004

Reason for exclusion	Wrong study design

Prakanrattana 2007

Reason for exclusion	Wrong study design

Reade 2009

Reason for exclusion	Wrong study design

Sasaki 2003

Reason for exclusion	Wrong study design

Sipahimalani 1998

Reason for exclusion	Wrong study design

Skrobik 2004

Reason for exclusion	Wrong study design

Straker 2006

Reason for exclusion	Wrong intervention

Tagarakis 2012

Reason for exclusion	Wrong intervention

Takeuchi 2007

Reason for exclusion	Wrong study design

Toda 2005

Reason for exclusion	Wrong study design

vandenBoogaard 2013

Reason for exclusion	Wrong patient population

vanEijk 2010

Reason for exclusion	Wrong intervention

Yoon 2013

Reason for exclusion	Wrong comparator

Footnotes

Characteristics of studies awaiting classification

Footnotes

Characteristics of ongoing studies

Footnotes

Summary of findings tables

Additional tables

References to studies

Included studies

Devlin 2010

Devlin,J. W.; Roberts,R. J.; Fong,J. J.; Skrobik,Y.; Riker,R. R.; Hill,N. S.; Robbins,T.; Garpestad,E.. Efficacy and safety of quetiapine in critically ill patients with delirium: a prospective, multicenter, randomized, double-blind, placebo-controlled pilot study. Critical Care Medicine 2010;38(2):419-427. [DOI: 10.1097/CCM.0b013e3181b9e302 [doi]]

Hakim 2012

Hakim,S. M.; Othman,A. I.; Naoum,D. O.. Early treatment with risperidone for subsyndromal delirium after on-pump cardiac surgery in the elderly: a randomized trial. Anesthesiology 2012;116(5):987-997. [DOI: 10.1097/ALN.0b013e31825153cc [doi]]

Tahir 2010

Tahir,T. A.; Eeles,E.; Karapareddy,V.; Muthuvelu,P.; Chapple,S.; Phillips,B.; Adyemo,T.; Farewell,D.; Bisson,J. I.. A randomized controlled trial of quetiapine versus placebo in the treatment of delirium. Journal of psychosomatic research 2010;69(5):485-490. [DOI: 10.1016/j.jpsychores.2010.05.006 [doi]]

Excluded studies

Aizawa 2002

Aizawa,K.; Kanai,T.; Saikawa,Y.; Takabayashi,T.; Kawano,Y.; Miyazawa,N.; Yamamoto,T.. A novel approach to the prevention of postoperative delirium in the elderly after gastrointestinal surgery. Surgery today 2002;32(4):310-314. [DOI:]

Atalan 2013

Atalan,N.; Efe Sevim,M.; Akgun,S.; Fazliogullari,O.; Basaran,C.. Morphine is a reasonable alternative to haloperidol in the treatment of postoperative hyperactive-type delirium after cardiac surgery. Journal of cardiothoracic and vascular anesthesia 2013;27(5):933-938. [DOI: 10.1053/j.jvca.2013.01.017 [doi]]

Bayindir 2001

Bayindir,O.; Guden,M.; Akpinar,B.; Sanisoglu,I.; Sagbas,E.. Ondansetron hydrochloride for the treatment of delirium after coronary artery surgery. The Journal of thoracic and cardiovascular surgery 2001;121(1):176-177. [DOI: S0022-5223(01)71415-8 [pii]]

Boettger 2011

Boettger,Soenke; Breitbart,William; Passik,Steven. Haloperidol and risperidone in the treatment of delirium and its subtypes. The European Journal of Psychiatry 2011;25(2):59-67. [DOI:]

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Breitbart 1996

Breitbart,W.; Marotta,R.; Platt,M. M.; Weisman,H.; Derevenco,M.; Grau,C.; Corbera,K.; Raymond,S.; Lund,S.; Jacobson,P.. A double-blind trial of haloperidol, chlorpromazine, and lorazepam in the treatment of delirium in hospitalized AIDS patients. The American Journal of Psychiatry 1996;153(2):231-237. [DOI: 10.1176/ajp.153.2.231 [doi]]

Breitbart 2002

Breitbart,W.; Tremblay,A.; Gibson,C.. An open trial of olanzapine for the treatment of delirium in hospitalized cancer patients. Psychosomatics 2002;43(3):175-182. [DOI: S0033-3182(02)70402-7 [pii]]

Douglas 2008

Douglas,I. J.; Smeeth,L.. Exposure to antipsychotics and risk of stroke: self controlled case series study. BMJ (Clinical research ed.) 2008;337(Journal Article):a1227. [DOI: 10.1136/bmj.a1227 [doi]]

Gill 2005

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Girard 2010

Girard,T. D.; Pandharipande,P. P.; Carson,S. S.; Schmidt,G. A.; Wright,P. E.; Canonico,A. E.; Pun,B. T.; Thompson,J. L.; Shintani,A. K.; Meltzer,H. Y.; Bernard,G. R.; Dittus,R. S.; Ely,E. W.; MIND Trial Investigators. Feasibility, efficacy, and safety of antipsychotics for intensive care unit delirium: the MIND randomized, placebo-controlled trial. Critical Care Medicine 2010;38(2):428-437. [DOI:]

Grover 2011

Grover,S.; Kumar,V.; Chakrabarti,S.. Comparative efficacy study of haloperidol, olanzapine and risperidone in delirium. Journal of psychosomatic research 2011;71(4):277-281. [DOI: 10.1016/j.jpsychores.2011.01.019 [doi]]

Han 2001

Han,L.; McCusker,J.; Cole,M.; Abrahamowicz,M.; Primeau,F.; Elie,M.. Use of medications with anticholinergic effect predicts clinical severity of delirium symptoms in older medical inpatients. Archives of Internal Medicine 2001;161(8):1099-1105. [DOI: ioi00640 [pii]]

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Kalisvaart 2005

Kalisvaart,K. J.; de Jonghe,J. F.; Bogaards,M. J.; Vreeswijk,R.; Egberts,T. C.; Burger,B. J.; Eikelenboom,P.; van Gool,W. A.. Haloperidol prophylaxis for elderly hip-surgery patients at risk for delirium: a randomized placebo-controlled study. Journal of the American Geriatrics Society 2005;53(10):1658-1666. [DOI: JGS53503 [pii]]

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Kim,K. S.; Pae,C. U.; Chae,J. H.; Bahk,W. M.; Jun,T.. An open pilot trial of olanzapine for delirium in the Korean population. Psychiatry and clinical neurosciences 2001;55(5):515-519. [DOI: pcn898 [pii]]

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Kishi 2012

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Studies awaiting classification

Ongoing studies

Other references

Additional references

Other published versions of this review

Data and analyses

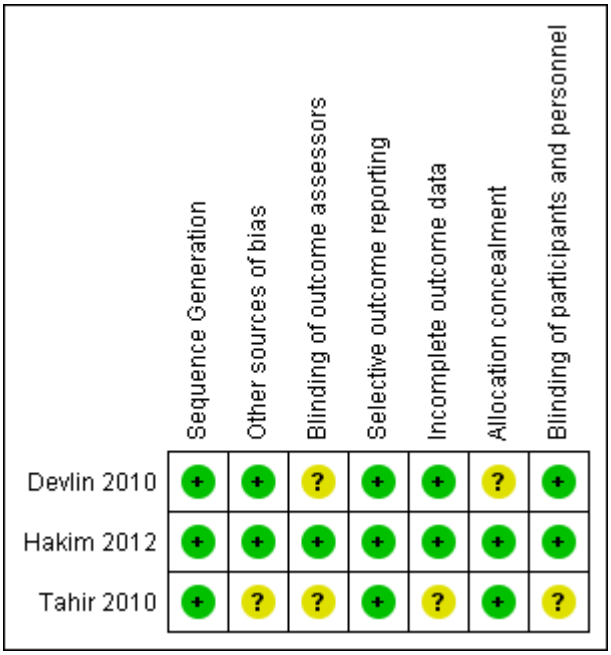
1 Intervention vs Kontrol

Outcome or Subgroup	Studies	Participants	Statistical Method	Effect Estimate
1.1 Genindlæggelser/readmissions (3 mdr FU)	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.2 Fald/falls (Ved udskrivelse)	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.3 Funktionsevne/physical function (ved udskrivelse)	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.4 Angst/anxiety (Ved udskrivelse)	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.5 Uro/restlessness (ved udskrivelse)	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.6 Delirium severity (ved udskrivelse)	1	41	Mean Difference (IV, Fixed, 95% CI)	-0.25 [-9.42, 8.91]
1.6.1 Time	1	41	Mean Difference (IV, Fixed, 95% CI)	-0.25 [-9.42, 8.91]
1.7 Delirium varighed (Ved udskrivelse)	2	60	Mean Difference (IV, Random, 95% CI)	-1.66 [-5.09, 1.76]
1.8 Død/mortality (ved udskrivelse)	2	137	Risk Ratio (IV, Random, 95% CI)	0.76 [0.13, 4.27]
1.8.1 Time	2	137	Risk Ratio (IV, Random, 95% CI)	0.76 [0.13, 4.27]

1.9 Død/mortality (3 mdr FU)	2	142	Risk Ratio (IV, Random, 95% CI)	1.42 [0.43, 4.62]
1.9.1 Time	2	142	Risk Ratio (IV, Random, 95% CI)	1.42 [0.43, 4.62]
1.10 SAE (Ved udskrivelse)	2	77	Risk Ratio (IV, Fixed, 95% CI)	2.86 [0.12, 66.44]
1.10.1 Time	2	77	Risk Ratio (IV, Fixed, 95% CI)	2.86 [0.12, 66.44]
1.11 Ekstrapyramidale bivirkninger/extrapyramidal symptoms (Ved udskrivelse)	3	178	Risk Ratio (IV, Random, 95% CI)	0.95 [0.18, 5.00]
1.11.1 Time	3	178	Risk Ratio (IV, Random, 95% CI)	0.95 [0.18, 5.00]
1.12 Duraition of hospitaliazation, days	2	137	Mean Difference (IV, Random, 95% CI)	-0.01 [-0.74, 0.73]

Figures

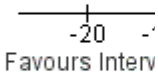
Figure 1



Risk of bias summary: review authors' judgements about each risk of bias item for each included study.

Figure 2 (Analysis 1.6)

Study or Subgroup	Intervention Mean	SD	Total	Kontrol Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI
1.6.1 Time								
Tahir 2010	7.132	15.33788085	21	7.387	14.59705176	20	100.0%	-0.25 [-9.42, 8.91]
Subtotal (95% CI)			**21**			**20**	**100.0%**	**-0.25 [-9.42, 8.91]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.05 (P = 0.96)								
Total (95% CI)			**21**			**20**	**100.0%**	**-0.25 [-9.42, 8.91]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.05 (P = 0.96)								
Test for subgroup differences: Not applicable								

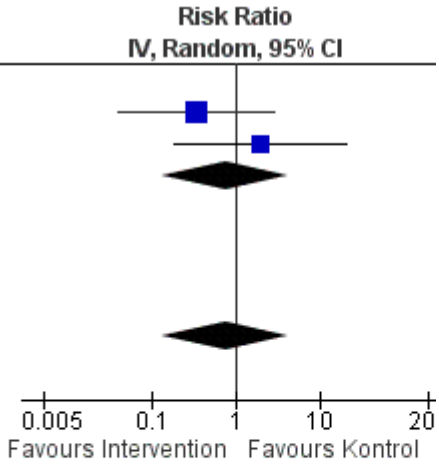


Risk of bias legend
(A) Sequence Generation
(B) Other sources of bias
(C) Blinding of outcome assessors
(D) Selective outcome reporting
(E) Incomplete outcome data
(F) Allocation concealment
(G) Blinding of participants and personnel

Forest plot of comparison: 1 Intervention vs Kontrol, outcome: 1.6 Delirium severity (ved udskrivelse).

Figure 3 (Analysis 1.8)

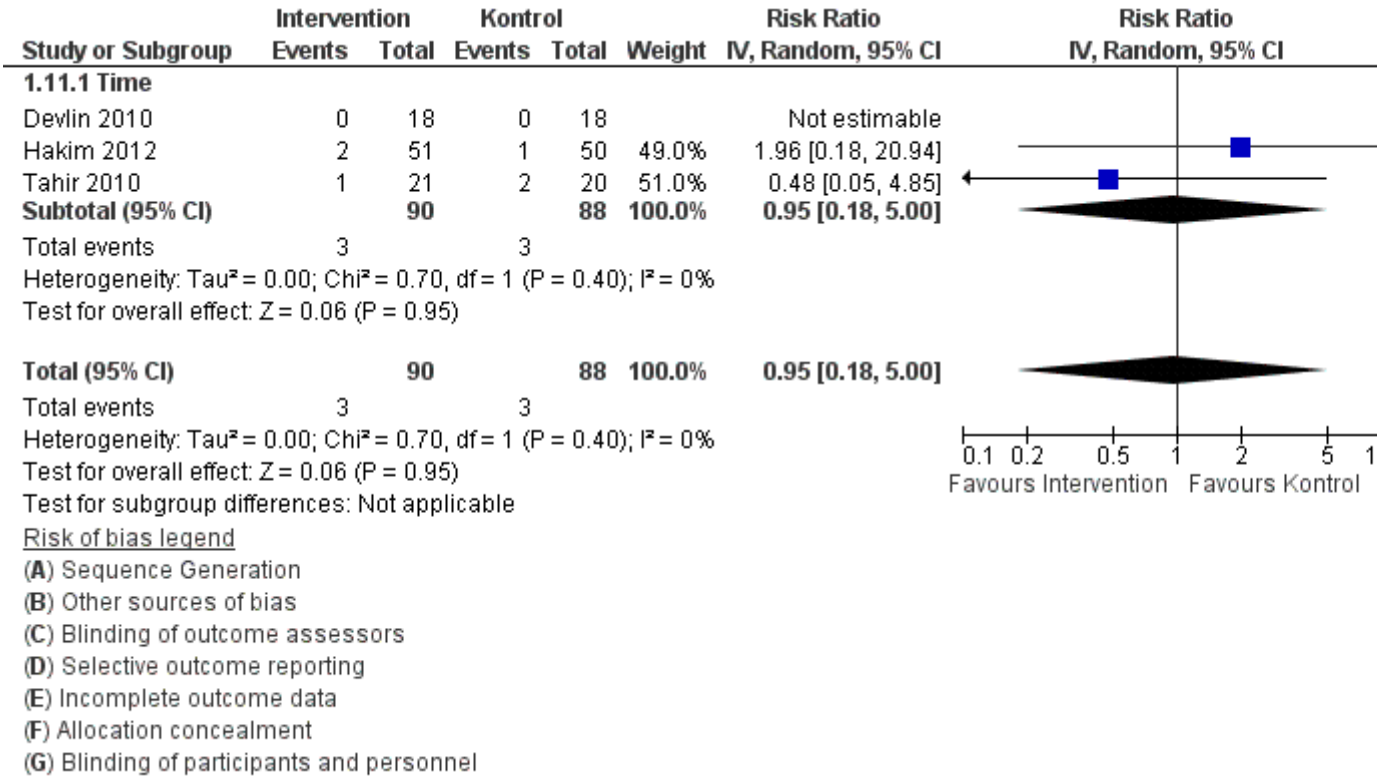
Study or Subgroup	Intervention Events	Total	Kontrol Events	Total	Weight	Risk Ratio IV, Random, 95% CI
1.8.1 Time						
Devlin 2010	1	18	3	18	53.8%	0.33 [0.04, 2.91]
Hakim 2012	2	51	1	50	46.2%	1.96 [0.18, 20.94]
Subtotal (95% CI)		**69**		**68**	**100.0%**	**0.76 [0.13, 4.27]**
Total events	3		4			
Heterogeneity: Tau² = 0.23; Chi² = 1.17, df = 1 (P = 0.28); I² = 15%						
Test for overall effect: Z = 0.32 (P = 0.75)						
Total (95% CI)		**69**		**68**	**100.0%**	**0.76 [0.13, 4.27]**
Total events	3		4			
Heterogeneity: Tau² = 0.23; Chi² = 1.17, df = 1 (P = 0.28); I² = 15%						
Test for overall effect: Z = 0.32 (P = 0.75)						
Test for subgroup differences: Not applicable						



Risk of bias legend
(A) Sequence Generation
(B) Other sources of bias
(C) Blinding of outcome assessors
(D) Selective outcome reporting
(E) Incomplete outcome data
(F) Allocation concealment
(G) Blinding of participants and personnel

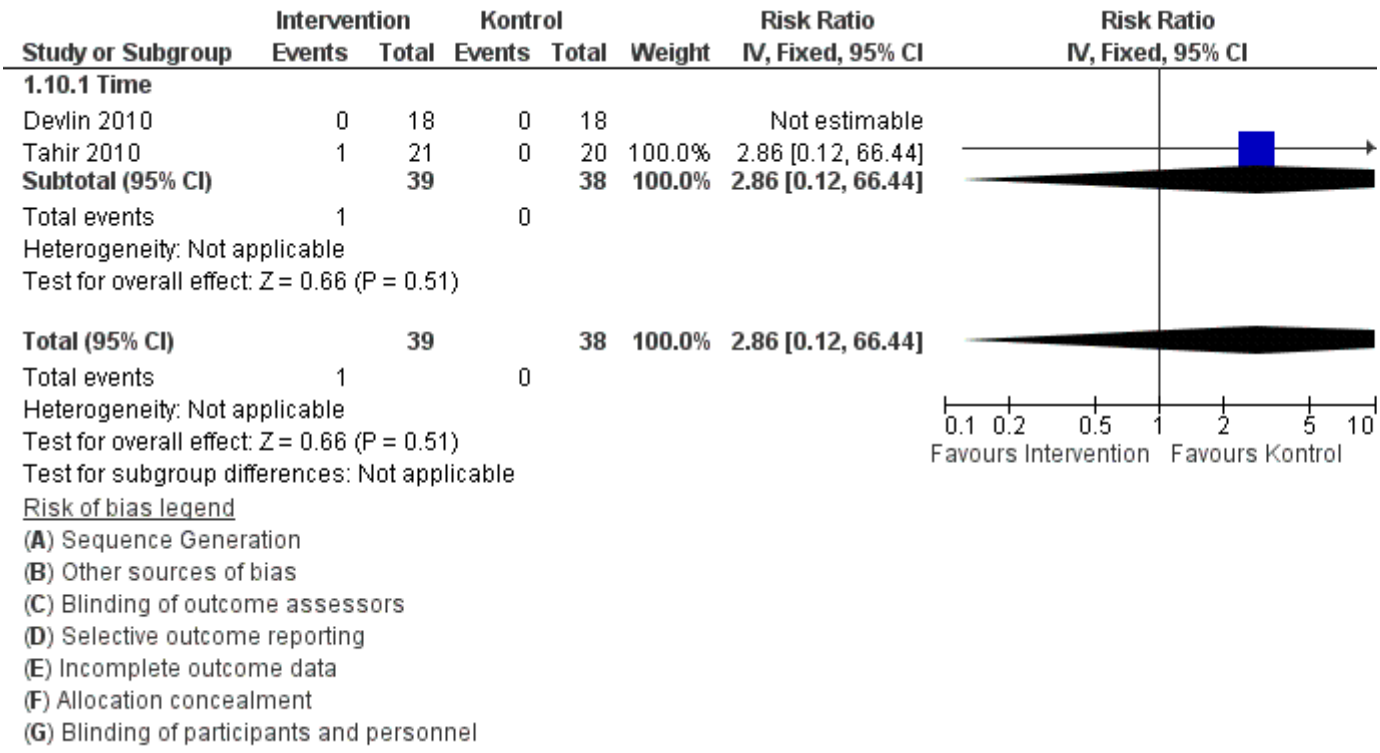
Forest plot of comparison: 1 Intervention vs Kontrol, outcome: 1.8 Død/mortality (ved udskrivelse).

Figure 4 (Analysis 1.11)



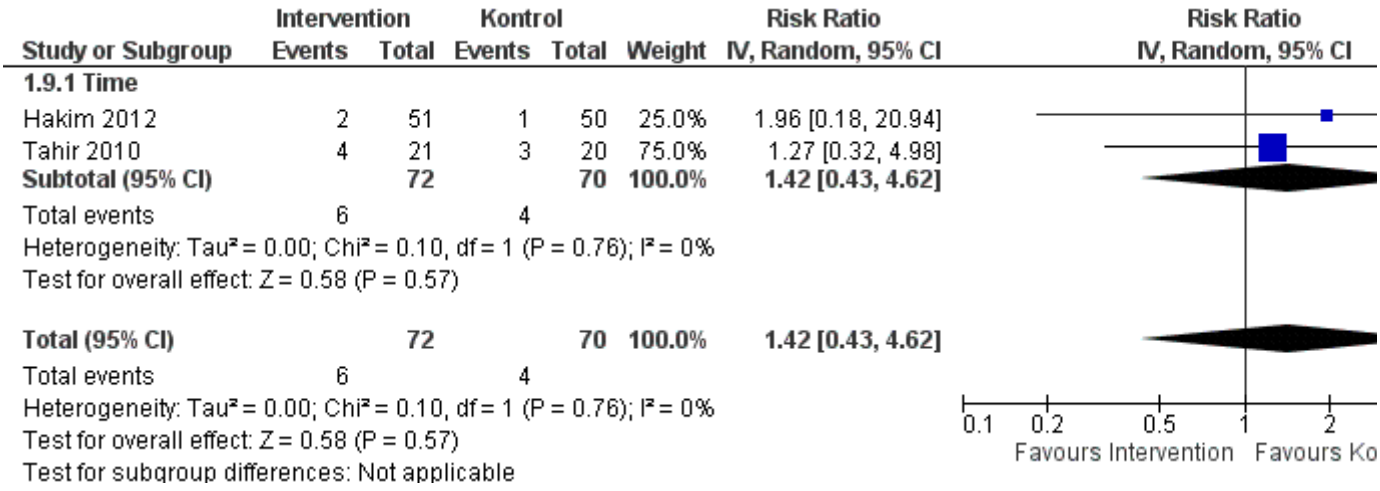
Forest plot of comparison: 1 Intervention vs Kontrol, outcome: 1.11 Ekstrapyramidale bivirkninger/extrapyramidal symptoms (Ved udskrivelse).

Figure 5 (Analysis 1.10)



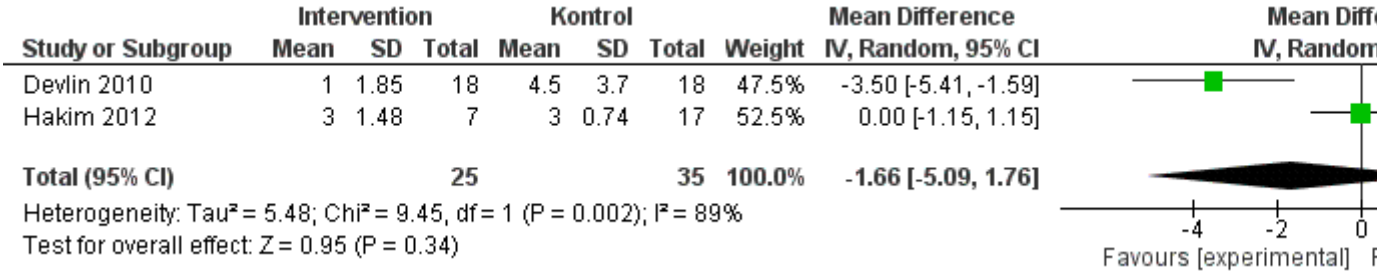
Forest plot of comparison: 1 Intervention vs Kontrol, outcome: 1.10 SAE (Ved udskrivelse).

Figure 6 (Analysis 1.9)



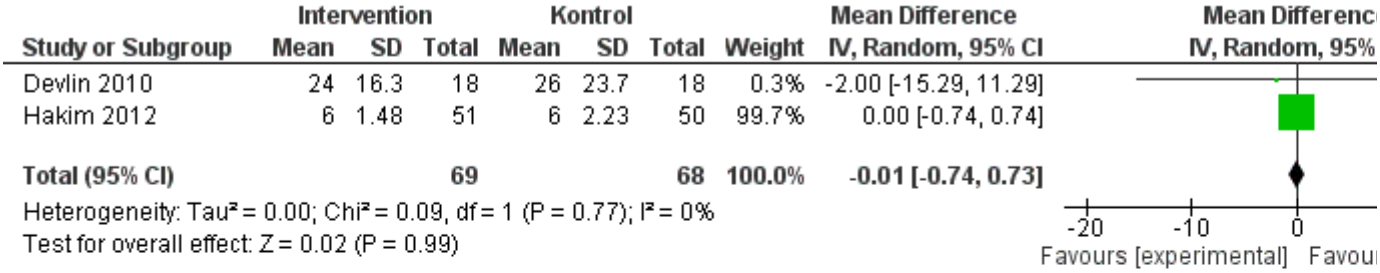
Forest plot of comparison: 1 Intervention vs Kontrol, outcome: 1.9 Død/mortality (3 mdr FU).

Figure 7 (Analysis 1.7)



Forest plot of comparison: 1 Intervention vs Kontrol, outcome: 1.7 Delirium varighed (Ved udskrivelse).

Figure 8 (Analysis 1.12)



Risk of bias legend
(A) Sequence Generation
(B) Other sources of bias
(C) Blinding of outcome assessors
(D) Selective outcome reporting
(E) Incomplete outcome data
(F) Allocation concealment
(G) Blinding of participants and personnel

Forest plot of comparison: 1 Intervention vs Kontrol, outcome: 1.12 Duraition of hospitaliazation, days.