

G.9.1.13 Non-invasive brain stimulation

Non-invasive brain stimulation in people with Alzheimer's disease (post-intervention)

Quality assessment						No of participants		Effect estimate	Quality
No of studies	Design	Risk of bias	Indirectness	Inconsistency	Imprecision	Brain stimulation	Sham	Summary of results Mean difference (95% CI)	
Cognition: MMSE – higher values favour intervention									
4	RCT	Serious ³	Not serious	Not serious	Serious ¹	50	40	MD 0.79 (-0.57, 2.15)	Low
Cognition (standardised mean difference): MMSE or ADAS-cog – higher values favour intervention									
5	RCT	Serious ³	Not serious	Not serious	Serious ¹	57	48	SMD 0.28 (-0.12, 0.68)	Low
Activities of daily living: IADL – higher values favour intervention									
2	RCT	Serious ³	Not serious	Not serious	Serious ^{1,2}	17	16	MD 0.00 (-1.45, 1.45)	Low
Depression: Geriatric Depression Scale (GDS)– lower values favour intervention									
2	RCT	Serious ³	Not serious	Not serious	Serious ¹	33	23	MD -1.08 (-2.24, 0.08)	Low
1. Non-significant result 2. Low participant numbers 3. No information on randomisation and allocation concealment methods and assessor blinding, unclear whether groups were balanced at baseline for some outcomes of interest ADAS-cog: Alzheimer's Disease Assessment Scale-cognitive; IADL: Instrumental Activities of Daily Living; MMSE: Mini Mental State									

Non-invasive brain stimulation in people with Alzheimer's disease (follow-up)

Quality assessment						No of participants		Effect estimate	Quality
No of studies	Design	Risk of bias	Indirectness	Inconsistency	Imprecision	Brain stimulation	Sham	Summary of results Mean difference (95% CI)	
Cognition: MMSE – higher values favour intervention									
3	RCT	Serious ⁴	Not serious	Serious ¹	Serious ²	45	35	MD 1.23 (-1.68, 4.14)	Very low
Activities of daily living: IADL – higher values favour intervention									

Quality assessment						No of participants		Effect estimate	Quality
No of studies	Design	Risk of bias	Indirectness	Inconsistency	Imprecision	Brain stimulation	Sham	Summary of results Mean difference (95% CI)	
1 (Cotelli 2014)	RCT	Serious ⁴	Not serious	N/A	Very serious ^{2,3}	12	12	MD 0.10 (-1.58, 1.78)	Very low
Depression: GDS – lower values favour intervention									
2	RCT	Serious ⁴	Not serious	Not serious	Serious ²	33	23	MD -2.07 (-4.19, 0.05)	Low
1. I ² >40% 2. Non-significant result 3. Low participant numbers 4. No information on randomisation and allocation concealment methods and assessor blinding, unclear whether groups were balanced at baseline for some outcomes of interest IADL: Instrumental Activities of Daily Living; GDS: Geriatric depression scale; MMSE: Mini Mental State Examinations									