**Cognition**

**Categorical/dichotomous**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Studies | Data type | Cognitive change  (decline vs no-decline) | Cognitive performance  (impairment vs no-impairment) | Note |
| Bickel 2008 | Cat |  | x | ?? Complaints about memory decline after surgery, but no information on whether it fell below the threshold or represented a change from baseline. |
| Bryson 2011 | Cat | x |  | Is this a categorical/ dichotomous change data?? I took it to change “decline vs non- decline” section  Cognitive dysfunction at three months. “A patient was classified as having POCD if the Z scores on either two individual tests or the combined Z score was -1.96 or more negative” |
| Bulic 2020 | Cat |  | x | Ok to me. “Lower scores indicate poorer performance (< 20 = severe impairment; 20–25 = mild impairment; 26–32 = ambiguous; > 32 = normal)” |
| Bulic 2020 | Cat |  | x |
| Daiello 2019 | Cat | x |  | Cognitive dysfunction. I took it to categorical decline analysis. Is this a decline? This the same as Bryson 2011 shall we take it that to decline as well. “Postoperative cognitive dysfunction was defined based on change from baseline; a composite z score of at least 1.96 across all tests, or z scores for two or more tests scores at least 1.96. “ |
| Daiello 2019 | Cat | x |  |
| Daiello 2019 | Cat | x |  |
| DelaVarga-Martínez 2022 | Cat |  | x | Is this a decline data? Memory problem, concentration problem, confusion/ disorientation. “we examined the change in cognitive function from before surgery  to 3 years after hospital discharge.” Except this statement there is no clear information on how the data categorized. |
| DelaVarga-Martínez 2022 | Cat |  | x |
| DelaVarga-Martínez 2022 | Cat |  | x |
| Dostovic 2021 | Cat |  | x | Ok to me. “Cognition preservation has a score of  0, and the maximum disorder has a score of 37.” |
| Franck 2016 | Cat |  | x | ??Cognitive dysfunction. I couldn’t get enough information on how they classified cognitive dysfunction. |
| Franck 2016 | Cat |  | x |
| Franck 2016 | Cat |  | x |
| Furlaneto 2007 | Cat | x |  | Cognitive loss. I took that to categorical change analysis section. “functional and cognitive status, we used repeated measures analysis of variance to compare the baseline and follow-up ADL, IADL, and BDRS of individual patients…..”allowing us to compare the  changes in functional and cognitive performances between cases and controls. |
| Gonçalves 2023 | Cat |  | x | Ok to me. “ a 10-CS harmonized score  <=5 to define cognitive impairment. |
| Hempenius 2016 | Cat | x |  | Took to categorical change analysis section. Decreased cognitive function |
| Inouye 2016 | Cat | x |  | I’m thinking cognitive decline. ??? moved to cognitive change categorical section |
| Kat 2008 | Cat |  | x | ??No clear information except mentioning they used “Peterson criteria” for assessing MCI. |
| Koster 2012 | Cat |  | x | It is ok but self report “We determined problems with memory, concentration, and confusion were present when the patient felt, thought, or believed he or she had a problem in this area. Memory problem, Concentration problem, Confusion |
| Koster 2012 | Cat |  | x |
| Koster 2012 | Cat |  | x |
| Mathies 2020 | Cat |  | x | Not that clear but I’m in favour of impairment. Neurodegeneration |
| McCusker 2014 | Cat | x |  | I took that to categorical change analysis section. |
| Nguyen 2018 | Cat |  | x | It is okay. “An individual was defined as being cognitively impaired on the basis of the MIS criteria if they scored 4 or less. Cognitive impairment based on the CFT screen  was defined as a score of 12 or less.” |
| Nguyen 2018 | Cat |  | x |
| Rudolph 2008 | Cat | x |  | It is okay. I just move this to change categorical section “The ISPOCD study  identified patients with POCD using a definition based on change from baseline which consisted of either a composite Z-score of > 2 across tests or two or more tests with Z-scores > 2. “Postoperative cognitive dysfunction was defined as a composite Z-score > 2 across tests or at least two individual test Z-scores > 2.” |
| Saczynski 2012 | Cat | x |  | Score below the baseline. Moved to change categorical section |
| Saczynski 2012 | Cat | x |  |
| Saczynski 2012 | Cat | x |  |
| VanderHeijden 2023 | Cat |  | x | It is ok. “Scores were transformed to a 0–100 range and a total of >43 points was considered  as cognitive impairment” |
| VanderHeijden 2023 | Cat |  | x |
| Vasunilashorn 2018 | Cat |  | x | It is ok. “IQCODE≥3.2 was used to indicate  Impairment” |
| Vasunilashorn 2018 | Cat |  | x |
| Vasunilashorn 2018 | Cat |  | x |
| Vasunilashorn 2018 | Cat |  | x |
| Vasunilashorn 2018 | Cat |  | x |
| Vasunilashorn 2018 | Cat |  | x |
| Verloo 2016 | Cat |  | x | It is ok. “The sum of the scores varies from 0 (severe cognitive impairment) to 30 (no cognitive impairment). A score of ,<24 points was considered as the cutoff point for cognitive impairment.” |
| Vives-Borrás 2019 | Cat | x |  | Check! The categorical data was decline whereas the continuous data was performance. Cognitive decline. Took to cognitive decline section. |
| Wolters 2014 | Cat |  | x | ?? it reports mild/severe problems with cognitive functioning “For assessment of problems with cognitive functioning we used the sixth question of the EQ-6D questionnaire. Problems with cognitive functioning were subdivided into no problems, mild problems and severe problems. |
| Wolters 2014 | Cat |  | x |
| Van Rijsbergen 2011 | Cat |  | x | It is ok. “lower z-score indicates a poorer performance. domain-specific disorder was considered to be present when the z-score was lower than −1.65.” |
| Van Rijsbergen 2011 | Cat |  | x |
| Van Rijsbergen 2011 | Cat |  | x |
| Van Rijsbergen 2011 | Cat |  | x |
| Van Rijsbergen 2011 | Cat |  | x |
| Van Rijsbergen 2011 | Cat |  | x |
| Van Rijsbergen 2011 | Cat |  | x |
| Chen 2017 | Cat |  | x | It is ok. “Patients were defined as having cognitive impairment if the total score of TICS‐m  was less than 33 points.” |

**Cognition**

**Continuous**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Studies | Data type | Score at follow-up | Change from the baseline | Note |
| Wolters 2017 | cont | x |  | Cognitive performance score |
| Wolters 2017 | cont | x |  |
| Witlox 2013 | cont | x |  | Cognitive performance score |
| Witlox 2013 | cont | x |  |
| Witlox 2013 | cont | x |  |
| Witlox 2013 | cont | x |  |
| Witlox 2013 | cont | x |  |
| Witlox 2013 | cont | x |  |
| Witlox 2013 | cont | x |  |
| Witlox 2013 | cont | x |  |
| Witlox 2013 | cont | x |  |
| Witlox 2013 | cont | x |  |
| Witlox 2013 | cont | x |  |
| Witlox 2013 | cont | x |  |
| Witlox 2013 | cont | x |  |
| Witlox 2013 | cont | x |  |
| Witlox 2013 | cont | x |  |
| Whittamore 2014 | cont | x |  | Cognitive performance score |
| Vives-Borrás 2019 | cont | x |  | Cognitive performance score |
| Verloo 2016 | cont | x |  | Cognitive performance score |
| Vasunilashorn 2018 | cont | x |  | Cognitive performance score |
| Vasunilashorn 2018 | cont | x |  |
| Vasunilashorn 2018 | cont | x |  |
| Vasunilashorn 2018 | cont | x |  |
| Vasunilashorn 2018 | cont | x |  |
| Vasunilashorn 2018 | cont | x |  |
| Vasunilashorn 2018 | cont | x |  |
| Vasunilashorn 2018 | cont | x |  |
| Vasunilashorn 2018 | cont | x |  |
| Vasunilashorn 2018 | cont | x |  |
| Vasunilashorn 2018 | cont | x |  |
| Vasunilashorn 2018 | cont | x |  |
| Vasunilashorn 2018 | cont | x |  |
| Vasunilashorn 2018 | cont | x |  |
| Vasunilashorn 2018 | cont | x |  |
| Vasunilashorn 2018 | cont | x |  |
| VandenBoogaard 2012 | cont | x |  | Cognitive performance score |
| Svenningsen 2014 | cont | x |  | Cognitive performance score |
| Svenningsen 2014 | cont | x |  |
| Svenningsen 2014 | cont | x |  |
| Svenningsen 2014 | cont | x |  |
| Svenningsen 2014 | cont | x |  |
| Svenningsen 2014 | cont | x |  |
| Sheng 2006 | cont | x |  | Cognitive performance score |
| Sheng 2006 | cont | x |  |
| Serrano-Duenas 2005 | cont | x |  | Cognitive performance score |
| Serrano-Duenas 2005 | cont | x |  |
| Serrano-Duenas 2005 | cont | x |  |
| Serrano-Duenas 2005 | cont | x |  |
| Serrano-Duenas 2005 | cont | x |  |
| Serrano-Duenas 2005 | cont | x |  |
| Serrano-Duenas 2005 | cont | x |  |
| Serrano-Duenas 2005 | cont | x |  |
| Serrano-Duenas 2005 | cont | x |  |
| Serrano-Duenas 2005 | cont | x |  |
| Sauer 2017 | cont | x |  | Cognitive performance score |
| Sauer 2017 | cont | x |  |
| Sauer 2017 | cont | x |  |
| Sauer 2017 | cont | x |  |
| Sauer 2017 | cont | x |  |
| Sauer 2017 | cont | x |  |
| Sauer 2017 | cont | x |  |
| Sauer 2017 | cont | x |  |
| Sauer 2017 | cont | x |  |
| Sauer 2017 | cont | x |  |
| Sauer 2017 | cont | x |  |
| Sauer 2017 | cont | x |  |
| Sauer 2017 | cont | x |  |
| Sauer 2017 | cont | x |  |
| Sauer 2017 | cont | x |  |
| Sauer 2017 | cont | x |  |
| Saczynski 2012 | cont | x |  | Cognitive performance score |
| Saczynski 2012 | cont | x |  |
| Saczynski 2012 | cont | x |  |
| Richardson 2021\_2 | cont | x |  | Cognitive performance score |
| Richardson 2021\_2 | cont | x |  |
| Racine 2020 | cont |  | x | Taken to “change” from baseline section |
| Racine 2020 | cont |  | x |
| Racine 2020 | cont |  | x |
| Pandharipande 2013 | cont | x |  | Cognitive performance score |
| Pandharipande 2013 | cont | x |  |
| Pandharipande 2013 | cont | x |  |
| Pandharipande 2013 | cont | x |  |
| Olofsson 2018 | cont | x |  | Cognitive performance score |
| Olofsson 2018 | cont | x |  |
| Olofsson 2018 | cont | x |  |
| Ojagbemi 2020 | cont | x |  | Cognitive performance score |
| Ojagbemi 2020 | cont | x |  |
| Ojagbemi 2020 | cont | x |  |
| Neufeld 2015 | cont | x |  | Cognitive performance score |
| Neufeld 2015 | cont | x |  |
| Neufeld 2015 | cont | x |  |
| Neufeld 2015 | cont | x |  |
| Neufeld 2015 | cont | x |  |
| Neufeld 2015 | cont | x |  |
| Nerdal 2022 | cont | x |  | Cognitive performance score |
| Nerdal 2022 | cont | x |  |
| Nerdal 2022 | cont | x |  |
| Muller 2023 | cont | x |  | Is this a performance score? |
| McCusker 2001 | cont | x |  | Cognitive performance score |
| McCusker 2001 | cont | x |  |
| McCusker 2001 | cont | x |  |
| McCusker 2001 | cont | x |  |
| Lingehall 2017 | cont | x |  | Cognitive performance score |
| Lingehall 2017 | cont | x |  |
| Lingehall 2017 | cont | x |  |
| Kunicki 2023 | cont | x |  | Cognitive performance score |
| Kunicki 2023 | cont | x |  |
| Kunicki 2023 | cont | x |  |
| Kunicki 2023 | cont | x |  |
| Kunicki 2023 | cont | x |  |
| Kunicki 2023 | cont | x |  |
| Kunicki 2023 | cont | x |  |
| Kunicki 2023 | cont | x |  |
| Kunicki 2023 | cont | x |  |
| Kunicki 2023 | cont | x |  |
| Kunicki 2023 | cont | x |  |
| Krogseth 2023 | cont | x |  | Cognitive performance score |
| Krogseth 2023 | cont | x |  |
| Krogseth 2016 | cont |  | x | Took to “change” from baseline section |
| Koster 2012 | cont | x |  | Cognitive performance score |
| Kat 2008 | cont | x |  | Cognitive performance score |
| Kat 2008 | cont | x |  |
| Kat 2008 | cont | x |  |
| Kat 2008 | cont | x |  |
| Kainz 2022 | cont | x |  | Cognitive performance score |
| Janssen 2021 | cont | x |  | Cognitive performance score |
| Janssen 2021 | cont | x |  |
| Jankowski 2011 | cont | x |  | Cognitive performance score |
| Jankowski 2011 | cont | x |  |
| Jankowski 2011 | cont | x |  |
| Jankowski 2011 | cont | x |  |
| Jankowski 2011 | cont | x |  |
| Inouye 2016 | cont | x |  | Cognitive performance score |
| Inouye 2016 | cont | x |  |
| Inouye 2016 | cont | x |  |
| Inouye 2016 | cont | x |  |
| Inouye 2016 | cont | x |  |
| Inouye 2016 | cont | x |  |
| Inouye 2016 | cont | x |  |
| Inouye 2016 | cont | x |  |
| Humbert 2021 | cont | x |  | Cognitive performance score |
| Humbert 2021 | cont | x |  |
| Hoogma 2023 | cont | x |  | Cognitive performance score |
| Giroux 2021 | cont | x |  | Cognitive performance score |
| Francis 1992 | cont | x |  | Cognitive performance score |
| Eide 2016 | cont | x |  | Cognitive performance score |
| Eide 2016 | cont | x |  |
| Duppils 2004 | cont | x |  | Is this a change from the baseline?? Check the result text section! |
| Cole 2008 | cont | x |  | Cognitive performance score |
| Cole 2008 | cont | x |  |
| Cole 2008 | cont | x |  |
| Chan 2017 | cont | x |  | Cognitive performance score |
| Chan 2017 | cont | x |  |
| Cavallari 2017 | cont | x |  | Cognitive performance score |
| Bulic 2020 | cont | x |  | Cognitive performance score |
| Bulic 2020 | cont | x |  |
| Bulic 2020 | cont | x |  |
| Bruck 2018 | cont | x |  | Cognitive performance score |
| Brown 2018 | cont | x |  | Cognitive performance score |
| Brown 2018 | cont | x |  |
| Cirbus 2019 | cont |  | x | Took to “change” from baseline section |
| Cirbus 2019 | cont |  | x |
| Cirbus 2019 | cont |  | x |
| Cirbus 2019 | cont |  | x |
| Cirbus 2019 | cont |  | x |
| Cirbus 2019 | cont |  | x |
| Ditzel 2023 | cont | x |  | Cognitive performance score |
| Sánchez-Lozano 2023 | cont | x |  | Cognitive performance score |
| Chen 2017 | cont | x |  | Cognitive performance score |

**Functional outcome**

**Categorical /dichotomous**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Studies | Data type | functional change  **(decline vs no-decline)** | functional performance  **(impairment vs no-impairment)** | Note |
| Abelha 2013 | cat |  | x | Impairment. It is ok. “The patients’ responses were categorized into two  groups: able or unable to perform each activity or group  of activities.” Become dependent in personal ADL&IADL |
| Abelha 2013 | cat |  | x |
| Alzoubi 2022 | cat |  | x | Impairment. It is ok. They classified as “dependent” vs “independent” in the table  “The maximum score is 6 indicating total independence, and the minimum score is 0 indicating total dependence, whereas a score between 1 and 5 indicates partial dependence.” |
| Beishuizen 2020 | cat | x |  | it is ok. “Increase of at least one point on the 15-item modified Katz Index of Activities of Daily Living or Groningen Activity Restriction Scale at follow up compared with baseline” |
| Bickel 2008 | cat |  | x | ??No description on whether it was below the threshold nor it was a change from the baseline.  Incident need for long-term care |
| Bickel 2008 | cat |  | x |
| Buurman 2011 | cat | x |  | it is ok. Functional decline was defined as a loss of at least one point on the original Katz ADL index score one year after hospital admission compared to the premorbid Katz ADL index score |
| Czyzycki 2022 | cat |  | x | It is ok. “modified Rankin Scale was used to assess functional outcome. Unfavourable outcomes were defined as a modified Rankin Scale score of 3–6.”  Poor outcome |
| Czyzycki 2022 | cat |  | x |
| Czyzycki 2022 | cat |  | x |
| Czyzycki 2022 | cat |  | x |
| Czyzycki 2022 | cat |  | x |
| Czyzycki 2022 | cat |  | x |
| Davis 2012 | cat | x |  | it is ok. “function (at least one category decline in five-point scale from independent to fully dependent for all care needs) between baseline and first follow-up in individuals also experiencing delirium” |
| DelaVarga-Martínez 2022 | cat |  | x | ??The study presented functional outcome before and after surgery in delirium and no-delirium group. They used “independent and less mobility as a variable when compared in delirium and no-delirium group. No threshold to classify this condition reported. |
| DelaVarga-Martínez 2022 | cat |  | x |
| Durlach 2023 | cat |  | x | I think they classified into two categories. See Table 6. BADL and IADL cut of scores.  Only said “were classified according to BIADL” “Basic activities of daily living (BADL) three months after dis-charge were found to be preserved in 70.86% of the non-delirium group, 57.14% of the SSD group and 50% of the delirium group.”  BADL less preserved, IADL less preserved |
| Durlach 2023 | cat |  | x |
| Edelstein 2004 | cat |  | x | I’m thinking functional performance but the study report as functional change  “Each of these basic and instrumental activities of daily living was rated on a scale of 0–4, with 0 being completely dependent and 4 being completely independent in that activity” “The patient’s ambulatory status was given a score between 1 (independent ambulator) and 6 (household ambulator with walker/crutches) for the prefracture status and 1 (independent ambulator) and 7 (restricted to wheelchair or bedridden) for post fracturestatus” |
| Edelstein 2004 | cat |  | x |
| Edelstein 2004 | cat |  | x |
| Eeles 2012 | cat |  | x | it is ok. “Although the FI can be considered as a continuum with higher values representing greater frailty, 0.25 has been proposed as the cut-off between ‘fit’ and ‘frail’” |
| FialhoSilva 2021 | cat |  | x | it is ok. “delirium as a predictor of functional outcome  (mRS>2).”… “Worse outcomes (mRS>2) at 30…..” |
| FialhoSilva 2021 | cat |  | x |
| Francis 1990 | cat |  | x | Not sure. “Nearly fourth of each group  reported some increase in dependency.” “Continuous  variables categorized using clinically meaningful cut points to generate odds ratio.” |
| Francis 1992 | cat |  | x | it is ok. “…..analyzed independent  community living as a dichotomous variable, with success  indicating that a subject was alive, not institutionalized,  and not dependent in basic ADL.”  Loss of independent community living |
| Furlaneto 2007 | cat | x |  | I’m thinking decline. “Functional and cognitive status, we used repeated  measures analysis of variance to compare the baseline and follow-up ADL, IADL, and BDRS of individual patients” Functional loss |
| Gandossi 2023 | cat |  | x | It is ok. “ We defined the presence of poor functional status at 4 months with a total score < = 2.”  Poor functional status |
| Gandossi 2023 | cat |  | x |
| Givens 2008 | cat |  | x | It is ok. “>=1-Point Decline in ADLs’”, “Loss of Prefracture Ability to  Walk 15 Feet Independently.” |
| Givens 2008 | cat |  | x |
| Givens 2008 | cat |  | x |
| Givens 2008 | cat |  | x |
| Givens 2009 | cat | x |  | it is ok. “Increase of two or more ADL deficits at 1 month from baseline.” |
| Guenther 2020 | cat | x |  | it is ok. “Patients’ demographic data were grouped into whether they had postoperative ADL lower than preoperative ADL (“ADL decline”), or whether there was no change or a higher ADL than before surgery (“No decline”).” |
| Hawley 2023 | cat |  | x | I think this is impairment?? “Return to mobility, that is, at least mobile outdoors with aid(s) or frame among those mobile to this degree prefracture” “Mobility analysis conducted only among those with outdoor mobility (with or without aid(s)/frame) before hip fracture.”  Not Return to outdoor mobility |
| Hempenius 2016 | cat | x |  | It is ok. “ADL functioning, was categorized in a lower score at 3-month follow Up compared to the baseline the baseline score (“decreased”) versus a same or higher score (“same/ increased”). “Use of supportive care was dichotomized in an increased number of hours  supportive care per week at 3-month follow-up compared to baseline (“increased”) versus the  same or a decreased number of hours supportive care (“same/ decreased”).” |
| Hempenius 2016 | cat | x |  |
| Hempenius 2016 | cat | x |  |
| Hempenius 2016 | cat | x |  |
| Hempenius 2016 | cat | x |  |
| Inouye 1998 | cat | x |  | it is ok. “At 3-month follow-up, ADL decline  was defined as a decline in ADL score from prehospitalization status until 3-month follow-up among survivors only” |
| Jackson 2014 | cat |  | x | Check! I think this is impairment “IADL disability (>8 on the FAQ) was seen in 26%  (108/422) and 23% (87/372) of individuals at 3 and 12 months”  “At least partial ADL disability (>0 on the Katz ADL), was seen in 32% (139/428) and 27%  (102/374) of individuals at 3 and 12 months”  “When comparing patients with and without baseline IADL disability, respectively, we found that 56% (19/34) vs. 23%  (87/384) had IADL disability at 3 months follow-up. Similarly at 12 months, 62% (21/34) vs. 20% (66/333) had IADL disability among those with and without baseline IADL disability |
| Jackson 2014 | cat |  | x |
| Jackson 2014 | cat |  | x |
| Jackson 2014 | cat |  | x |
| Lee 2011 | cat |  | x | I think this is impairment. Postoperative functional outcomes were evaluated  using activity levels, which were defined as  follows: I, normal; II, essentially independent outdoors  but requiring help with some activities; III, independent  indoors but always requiring help outdoors; IV, not  independent indoors but able to transfer and walk independently; and V, confined to bed or chair and not  ambulatory |
| Lee 2011 | cat |  | x |
| Liang 2014 | cat | x |  | I think this is decline. “To compare functional changes at 1, 3,6, and 12 months, ADL or IADL functional decline was defined as lower ADL or IADL score at follow-up than at baseline” |
| Liang 2014 | cat | x |  |
| Liang 2014 | cat | x |  |
| Liang 2014 | cat | x |  |
| Liang 2014 | cat | x |  |
| Liang 2014 | cat | x |  |
| Liang 2014 | cat | x |  |
| Liang 2014 | cat | x |  |
| McCusker 2014 | cat | x |  | “10-point decline in Barthel Index.” |
| Miyamoto 2021 | cat |  | x | Impairment “BI score, which ranges between 0 (total dependence when performing ADL) and 100 (fully independent in performing ADL). There is no standardized cut-off value, but we applied a strict definition of disability affecting ADL as BI score <= 60”  ADL disability |
| Miyamoto 2021 | cat |  | x |
| Morandi 2014 | cat |  | x | Impairment?? “The primary outcome was that of walking dependence captured as a trajectory from discharge to 1-year follow-up. Degree of walking dependence at discharge and at 1-year follow-up was assessed using the BI walking mobility subitem. A score less than 15 (the maximum score) is robust to the presence of mobility impairment”  Walking dependency |
| Murray 1993 | cat | x |  | I think this is decline” Physical Function Outcome at Three Months After Discharge Compared to Admission Function”  “Second, we used a normative transformation of change  analysis in a linear regression model to examine the effect of incident delirium on change in function over the initial 3-month observation period.” |
| Murray 1993 | cat | x |  |
| Neufeld 2015 | cat |  | x | Impairment” Patients reporting falls since discharge”  Fall |
| Neufeld 2015 | cat | x |  | Decline “Change in living status, baseline to 18-month” |
| Noriega 2015 | cat | x |  | Decline “Functional decline was defined as the loss of  at least 1 point in the ADL total score with respect to the  preadmission status.” |
| Noriega 2015 | cat | x |  |
| Noriega 2015 | cat | x |  |
| Noriega 2015 | cat | x |  |
| Ogawa 2017 | cat |  | x | Impairment” Frailty was defined as diminished handgrip strength (<26 kg for men and <18 kg for women) and/ or usual walking speed (<0.8 m/s)”  Frailty |
| Paulino 2023 | cat |  | x | Impairment “Each function is scored as either independent (yes) or dependent (no). Based on their total score, the patients were categorized as follows: total dependency = 0; severe dependence = 1–2; moderate dependence = 3–4; mild dependence = 5; and total independence = 6.”  ADL dependency |
| Paulino 2023 | cat |  | x |
| Qu 2018 | cat |  | x | Impairment “ we defined a poor outcome as an MRS score greater than to 3 or an IADL total score greater than 75th percentile of the IADL score.”  Poor outcome |
| Qu 2018 | cat |  | x |
| Qu 2018 | cat |  | x |
| Qu 2018 | cat |  | x |
| Quinlan 2011 | cat | x |  | Decline “Functional decline was defined as decline in at least one item from baseline. Those with preserved or improved function were considered not to have declined.” |
| Racine 2018 | cat | x |  | Decline “New impairment in cognitive IADL is impairment at 1 month not present at baseline in ability to use money, manage medications, use imbedded figure  relates to the telephone, or cooking.  Decline in physical function was defined as a decline of 5 or more points (0.5 population SD) on a composite physical functioning score based on ADLs, IADLs, and numbers in the columns.” |
| Racine 2018 | cat | x |  |
| Rawle 2021 | cat |  | x | Impairment “The presence of delirium was instead strongly associated with the highest degrees of functional impairment, represented by a FAST score of >= 6” |
| Rollo 2022 | cat |  | x | Impairment “A score of 2 or less was considered the cutoff for functional independence”  Poor functional outcome |
| Rudolph 2010 | cat | x |  | Decline “Functional decline was defined as the loss of 2  IADL points, which correlates to the decline of one IADL or  partial decline on two IADLs“ |
| Rudolph 2010 | cat | x |  |
| Shim 2015 | cat | x |  | Decline “Change in activities of daily living (preoperative to 30 days postoperatively” |
| Shim 2015 | cat | x |  |
| Singler 2014 | cat |  | x | No clear information but I think it is impairment “IADL impairments were equally frequent  and the rate of patients with a history of  falls during the past 90 days was high”  Fall |
| Suraarunsumrit 2022 | cat | x |  | Decline “A functional decline was defined as a  drop of 2 or more points from the preoperative IADL  score to that achieved 3 months after surgery”  Declined ADL |
| Suraarunsumrit 2022 | cat | x |  |
| Suraarunsumrit 2022 | cat | x |  |
| Tavares 2021 | cat | x |  | Decline “FD was defined as any decline in one or more points in the KI between the three moments at which the assessment was conducted.” Baseline, discharge follow-up. |
| To-adithep 2023 | cat |  | x | Impairment. “B-ADL scores <=70 and I-ADL scores <9 were defined as dependency state” |
| To-adithep 2023 | cat |  | x |
| VanderHeijden 2023 | cat |  | x | Impairment “The total score ranges from 8 to 56, where fatigue is indicated by a score of 27 or higher”  fatigue |
| Verloo 2016 | cat |  | x | Impairment “The total score ranges from 8 to 56, where fatigue is indicated by a score of 27 or higher”  IADL dependency |
| Verloo 2016 | cat |  | x |
| Vives-Borrás 2019 | cat | x |  | Decline “Loss of at least 5 points in the 6-month Barthel score.” |
| Zakriya 2004 | cat |  | x | Impairment “Need assistance with different ADL and IADL measures” |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |
| Zakriya 2004 | cat |  | x |

**Functional outcome**

**Continuous and change**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Studies | Data type | Change from baseline | Score at follow-up | Note |
| Cartei 2022 | cont |  | x | ??? check! I’m thinking “Score at follow-up” but there is information “ADL and IADL score changes over time were compared between groups with and without delirium estimating the time group interactions in 2 repeated-measures analysis of variance models.”  Disability in ADL |
| Chan 2017 | cont |  | x | Performance |
| Chan 2017 | cont |  | x |
| Chan 2017 | cont |  | x |
| Cirbus 2019 | cont | x |  | I think this is a change from the baseline “In patients with a pre-illness OARS ADL of 15 (poorer baseline function), the six-month OARS ADL was lowered by −2.9 points (95%CI: −0.3 to −5.6) and −4.3 points (95%CI: −4.4 to −8.5) in delirium  secondary to metabolic disturbances and organ  dysfunction, respectively.” |
| Cirbus 2019 | cont | x |  |
| Cirbus 2019 | cont | x |  |
| Cole 2008 | cont |  | x | Performance |
| Cole 2008 | cont |  | x |
| Cole 2008 | cont |  | x |
| Cole 2008 | cont |  | x |
| Cole 2008 | cont |  | x |
| Cole 2008 | cont |  | x |
| Decrane 2012 | cont |  | x | Performance  Fall |
| Decrane 2012 | cont |  | x |
| Decrane 2012 | cont |  | x |
| Eeles 2012 | cont |  | x | Performance  Frailty |
| Eide 2016 | cont |  | x | Performance and change result presented. Table 2 for performance (the mean difference between delirium and no-delirium group at follow-up timepoint) and Fig.1 is the change from the baseline. It was not clear which p value is the comparison between delirium and no-delirium group. Both delirium and no-delirium p-vale presented. |
| Eide 2016 | cont |  | x |
| Eide 2016 | cont |  | x |
| Eide 2016 | cont |  | x |
| Eide 2016 | cont |  | x |
| Eide 2016 | cont |  | x |
| Eide 2016 | cont |  | x |
| Eide 2016 | cont |  | x |
| Fick 2013 | cont | x |  | Change |
| Giroux 2021 | cont |  | x | Performance |
| Giroux 2021 | cont | x |  | Change |
| Hoogma 2023 | cont |  | x | Performance |
| Hshieh 2017 | cont |  | x | Performance |
| Hshieh 2017 | cont |  | x |
| Hshieh 2017 | cont |  | x |
| Hshieh 2017 | cont |  | x |
| Humbert 2021 | cont |  | x | Performance |
| Humbert 2021 | cont |  | x |
| Isaia 2009 | cont | x |  | I’m thinking “change” “Similar results were found in ADL  functions: delirious patients lost more functions (2.8±  2.2) than those who did not develop delirium during  hospitalisation (0.7±0.6) (P<.001).” |
| Jankowski 2011 | cont |  | x | Performance |
| Jankowski 2011 | cont |  | x |
| Jankowski 2011 | cont | x |  | Change |
| Jankowski 2011 | cont | x |  |
| Katz 2001 | cont | x |  | Change |
| Liang 2014 | cont |  | x | Performance |
| Liang 2014 | cont |  | x |
| Liang 2014 | cont |  | x |
| Liang 2014 | cont |  | x |
| Liang 2014 | cont |  | x |
| Liang 2014 | cont |  | x |
| Liang 2014 | cont |  | x |
| Liang 2014 | cont |  | x |
| McCusker 2001 | cont |  | x | Performance |
| McCusker 2001 | cont |  | x |
| McCusker 2001 | cont |  | x |
| McCusker 2001 | cont |  | x |
| McCusker 2001 | cont |  | x |
| Miyamoto 2021 | cont |  | x | Performance |
| Miyamoto 2021 | cont |  | x |
| Monacelli 2018 | cont |  | x | Performance |
| Monacelli 2018 | cont |  | x |
| Monacelli 2018 | cont |  | x |
| Monacelli 2018 | cont |  | x |
| Murray 1993 | cont |  | x | Performance |
| Murray 1993 | cont |  | x |
| Murray 1993 | cont |  | x |
| Murray 1993 | cont |  | x |
| Neufeld 2015 | cont |  | x | Performance |
| Neufeld 2015 | cont |  | x |
| Neufeld 2015 | cont | x |  | Change |
| Neufeld 2015 | cont | x |  |
| Ojagbemi 2020 | cont | x |  | I’m thinking “change” “full delirium (MD=-5.6, 95% C.I = -9.0, -2.1, p = 0.002) at baseline independently predicted poorer performance in global cognitive functioning at 3 months poststroke. In the same table, significant declines in physical functioning (MD = -2.8, 95% C.I = -5.5,-0.2) were recorded at 3 months in stroke survivors with baseline DSM V delirium. However, these changes were not significant in those with ADS ” |
| Oldenbeuving 2011 | cont |  | x | Performance |
| Pasinska 2019 | cont |  | x | Performance |
| Pasinska 2019 | cont |  | x |
| Pasinska 2019 | cont |  | x |
| Pasinska 2019 | cont |  | x |
| Rudolph 2010 | cont |  | x | Performance |
| Rudolph 2010 | cont |  | x |
| Sheng 2006 | cont |  | x | Performance |
| Sheng 2006 | cont |  | x |
| Sheng 2006 | cont |  | x |
| Shi 2019 | cont |  | x | Performance |
| Shi 2019 | cont |  | x |
| Shi 2019 | cont |  | x |
| Shi 2019 | cont |  | x |
| Shi 2019 | cont |  | x |
| Shi 2019 | cont |  | x |
| Shi 2019 | cont |  | x |
| Shi 2019 | cont |  | x |
| Shi 2019 | cont |  | x |
| Shi 2019 | cont |  | x |
| Shi 2019 | cont | x |  | Change |
| Shi 2019 | cont | x |  |
| Shi 2019 | cont | x |  |
| Shi 2019 | cont | x |  |
| Shi 2019 | cont | x |  |
| Shi 2019 | cont | x |  |
| Shi 2019 | cont | x |  |
| Shi 2019 | cont | x |  |
| Shi 2019 | cont | x |  |
| Shi 2019 | cont | x |  |
| Shi 2019\_2 | cont | x |  | Change “ADL decline was calculated by using follow-up ADLs score minus baseline ADLs score, which indicated the decline of activities of daily living” |
| Suraarunsumrit 2022 | cont |  | x | Performance |
| Suraarunsumrit 2022 | cont |  | x |
| Svenningsen 2014 | cont |  | x | Performance |
| Svenningsen 2014 | cont |  | x |
| VandenBoogaard 2012 | cont |  | x | Performance |
| Verloo 2016 | cont |  | x | Performance |
| Vida 2006 | cont | x |  | I’m thinking “change” but the study is not that clear  “In the non-dementia stratum, the group without delirium declined minimally, if at all, whereas the group with delirium declined to a significantly greater degree by 18 months” |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vida 2006 | cont | x |  |
| Vives-Borrás 2019 | cont |  | x | Performance |
| Vives-Borrás 2019 | cont |  | x |
| Wang 2021 | cont |  | x | Performance |
| Weng 2019 | cont |  | x | Performance |
| Weng 2019 | cont |  | x |
| Weng 2019 | cont |  | x |
| Whittamore 2014 | cont |  | x | Performance |
| Witlox 2013 | cont |  | x | Performance |
| Witlox 2013 | cont |  | x |
| Zakriya 2004 | cont |  | x | Performance |
| Zakriya 2004 | cont |  | x |
| Zipprich 2020 | cont |  | x | Performance |
| Miu 2013 | cont |  | x | Performance |
| Miu 2013 | cont |  | x |
| Miu 2013 | cont |  | x |
| Miu 2013 | cont |  | x |
| Sánchez-Lozano 2023 | cont |  | x | Performance |