## S1. Appendix

### Search strategy for PubMed

#### SETTING

| Number | Search Term                                                                 | Findings     |
|--------|----------------------------------------------------------------------------|--------------|
| 1      | Aged[MeSH Terms]                                                          | 2395350      |
| 2      | Inpatients[MeSH Terms]                                                    | 6786         |
| 3      | Hospitalization[MeSH Terms]                                               | 79284        |
| 4      | Hospitals [MeSH Terms]                                                    | 38484        |
| 5      | Inpatient[tw] OR Inpatients[tw]                                            | 31741        |
| 6      | Hospitalization[tw]                                                       | 57873        |
| 7      | Hospitals[tw] OR Hospital[tw]                                             | 265366       |
| 8      | Preoperative Period[MeSH Terms]                                           | 3056         |
| 9      | Preoperative Care[MeSH Terms]                                             | 16724        |
| 10     | Elective Surgical Procedures[MeSH Terms]                                  | 5151         |
| 11     | ((Inpatients[MeSH Terms] OR Hospitalization[MeSH Terms] OR Hospitals[MeSH Terms] OR Inpatient[tw] OR Inpatients[tw] OR Hospitalization[tw] OR Hospitals[tw] OR Hospital[tw] OR Preoperative Period[MeSH Terms] OR Preoperative Care[MeSH Terms] OR Elective Surgical Procedures[MeSH Terms])) AND Aged[MeSH Terms] | 333855       |

#### DISEASE

| Number | Search Term                                                                 | Findings     |
|--------|----------------------------------------------------------------------------|--------------|
| 1      | Dementia[MeSH Terms]                                                       | 62443        |
| 2      | Cognition Disorders[MeSH Terms]                                           | 28962        |
| 3      | cognition[Title] OR cognitive[Title] OR dementia[Title] OR Alzheimer*[Title] | 61238        |
| 4      | (Dementia[MeSH Terms] OR Cognition Disorders[MeSH Terms] OR cognition[Title] OR cognitive[Title] OR dementia[Title] OR Alzheimer*[Title]) | 86042        |

#### OUTCOME

| Number | Search Term                                                                 | Findings     |
|--------|----------------------------------------------------------------------------|--------------|
| 1      | Sensitivity and specificity[MeSH Terms]                                    | 144745       |
| 2      | Predictive value of tests[MeSH Terms]                                      | 73030        |
| 3      | Validation[tw] OR Validate[tw] OR validity[tw]                             | 65206        |
| 4      | Psychometrics[MeSH Terms]                                                  | 17329        |
| 5      | Prevalence[MeSH Terms]                                                     | 73523        |
| 6      | (Sensitivity and specificity[MeSH Terms] OR Predictive value of tests[MeSH Terms] OR Validation[tw] OR Validate[tw] OR validity[tw] OR Psychometrics[MeSH Terms] OR Prevalence[MeSH Terms]) | 268129       |

#### INTERVENTION

| Number | Search Term                                                                 | Findings     |
|--------|----------------------------------------------------------------------------|--------------|
| 1      | Diagnostic tests, routine[MeSH Terms]                                      | 1823         |
| 2      | Mass screening[MeSH Terms]                                                 | 22235        |
| 3      | Early diagnosis[MeSH Terms]                                                 | 11961        |
| 4      | Neuropsychological Tests[MeSH Terms]                                       | 50210        |
| 5      | Geriatric Assessment[MeSH Terms]                                           | 21583        |
| 6      | Intelligence Tests[MeSH Terms]                                             | 2488         |
| 7      | Psychiatric Status Rating Scales[MeSH Terms]                               | 23256        |
| 8      | Screen[tw] OR Screening[tw]                                                | 80365        |
| 9      | test[Title]                                                                | 16192        |
| 10     | tests[Title]                                                               | 5071         |
| 11     | Tool[Title]                                                                | 5332         |
| 12     | Tools[Title]                                                               | 1087         |
| 13     | Measures[Title]                                                            | 5942         |
| 14     | Measure[Title]                                                             | 4226         |
| 15     | Instrument[Title]                                                          | 1939         |
| 16     | Instruments[Title]                                                         | 871          |
| 17     | Assessment[Title]                                                          | 38332        |
| 18     | Detection[Title]                                                           | 23021        |
| 19     | ((5 word test[tw] OR Five word test[tw] OR 6 item cognitive impairment test[tw] OR Six item cognitive impairment test[tw] OR 6CIT[tw] OR 7 Minute Screen[tw] OR Seven Minute Screen[tw] OR Abbreviated mental test[tw] OR Blessed Orientation Memory Concentration Test[tw] OR BOMC[tw] OR BrainCheck[tw] OR Clock Drawing test[tw] OR Elderly Cognitive Assessment Questionnaire[tw] OR ECAQ[tw] OR ECDR[tw] OR Expanded Clinical Dementia Rating[tw] OR Frontal Assessment Battery[tw] OR GPCOG[tw] OR General Practitioner Assessment of Cognition [tw] OR Hasegawa Dementia Scale[tw] OR Mattis Dementia Rating Scale[tw] OR Mini Cog[tw] OR MMSE[tw] OR Mini-Mental State Examination[tw] OR Modified MMSE[tw] OR MiniMental State Examination[tw] OR MOCA[tw] OR Montreal Cognitive Assessment[tw] OR Saint Louis University Mental Status Examination[tw] OR St. Louis University Mental Status Examination[tw] OR SLUMS[tw]) OR ((Diagnostic tests, routine[MeSH Terms] OR Mass screening[MeSH Terms] OR Early diagnosis[MeSH Terms] OR Neuropsychological Tests[MeSH Terms] OR Geriatric Assessment[MeSH Terms] OR Intelligence Tests[MeSH Terms] OR Psychiatric Status Rating Scales[MeSH Terms] OR Screen[tw] OR Screening[tw] OR test[Title] OR tests[Title] OR Tool[Title] OR Tools[Title] OR Measures[Title] OR Measure[Title] OR Instrument[Title] OR Instruments[Title] OR Assessment[Title] OR Detection[Title]) | 232501       |
Instruments recommended for dementia screening in Primary Care setting were extracted from the following Dementia Practice Guidelines, if the administration time < 15 min, included more than one cognitive domain and were not only targeting informants.

| Dementia Practice Guideline | Recommended instruments (brief cog. testing instrument) |
|-----------------------------|---------------------------------------------------------|
| Ministry of Health Singapore (2013) | Elderly Cognitive Assessment Questionnaire, Abbreviated Mental Test, AD8, Mini Mental State Examination, Frontal Assessment Battery, Montreal Cognitive Assessment Mini-Mental State Examination (MMSE), 7min, Addenbrooke’s cognitive examination revised (ACE-R), MOCA, Mattis Dementia Rating Scale (MDRS), Clock Drawing test (CDT), 5 word test, Mini-Mental Status Examination, Clock Drawing Test, MOCA, Minicog, BRAINCHECK, |
| European Federation of Neurological Sciences (2012) | MMSE, 6-item Cognitive Impairment Test (6-CIT), General Practitioner Assessment of Cognition (GPCOG), 7-Minute Screen Mini-Mental State Examination, Expanded Clinical Dementia Rating, Global Deterioration Scale, Modified-MMSE, Hasegawa Dementia Scale, 7-Minute Screen Test, Montreal Cognitive Assessment |
| Consensus 2012 - Diagnosis and Treatment of Patients with Dementia in Switzerland | Blessed Orientation Memory Concentration Test (BOMC), Cognitive Assessment Screening Instrument (CASI), MiniCog, Mini-Mental State Examination, MOCA, St. Louis University Mental Status Examination (SLUMS) |
| National Institute for Health and Clinical Excellence (2011) | |
| Clinical Research Centre for Dementia of South Korea (2011) | |
| California Workgroup on Guidelines (2011) | |

Final search string for PubMed

Setting 11 AND Intervention 19 AND Disease 4 AND Outcome 6 904

Filters:

Database: Pubmed
Access Date: 04.10.2019

Filters:

Article Type included: Clinical trial, clinical study, controlled clinical trial, journal article, meta-analysis, multicentre study, observational study, randomized controlled trial, review, systematic review, validation study
Language selected: English & German,
Age included: 65+ years
Findings before filters: 954, after: 904
Time range of findings: 1972-2019
Abbreviations: MeSH = Medical Subject Headings, TW = Text words