

Supplementary table 1: General Characteristics of Studies.

Frailty Assessment Tool	Study reference	Study Design & Data Set	Study Population: Total N (% female) Mean age years (S.D)	Setting	Country	Final follow Up (months)
Brief Clinical Instrument to Classify Frailty	Rockwood et al. ⁴²	Prospective cohort study CSHA	9008 (-) Aged: ≥65	Community, general older adult population	Canada	60
	Kenig et al. ⁴³	Prospective cohort study	135 (55.5) 75.0 (± 6.6)	Inpatient, cancer diagnosis with solid abdominal tumours in need of surgery	Poland	N/A
	Ritt et al. ⁴⁴	Prospective cohort study	307 (67.7) Aged ≥65	Inpatient, Geriatric wards	Germany	12
Brief Frailty Index	Freiheit et al. ⁴⁵	Prospective cohort study CCCS	374 (27) 71.0 (± 5.9)	Inpatient, coronary artery disease diagnosis	Canada	12
British Frailty Index	Kamaruzzaman et al. ⁴⁶	Prospective cohort study BWHHS	4286 (100) Age range: 60-79	Community, general older adult population (female)	UK	Median 98.4 (range 4 to 111.6)
Care Partners-Frailty Index-Comprehensive Geriatric Assessment (CP-FI-CGA)	Goldstein et al. ⁴⁷	Validation study	203 (62.1) 82.2 (± 5.9)	Emergency medical services/geriatric ambulatory care	Canada	12
Clinical Frailty Scale	Rockwood et al. ⁴⁸	Prospective cohort study CSHA	2305(-) Aged: ≥65	Community, general older adult population	Canada	60
	Rockwood et al. ⁴⁹	Prospective cohort study CSHA	728 (73.4) 87.0 (± 6.72)	Long-term care institutions	Canada	60

Frailty Assessment Tool	Study reference	Study Design & Data Set	Study Population: Total N (% female) Mean age years (S.D)	Setting	Country	Final follow Up (months)
	Mitiniski et al. ⁵⁰	Prospective cohort study CSHA	2305 (62.1) 83.1 (± 6.9)	Community, general older adult population	Canada	60
	Kang et al. ⁵¹	Prospective cohort study	352 (42.3) 74 (-)	Inpatient, cardiology and Geriatrics Departments, Older adults with a diagnosis of Acute Coronary Syndrome	China	4
Clinical Global Impression of Change in Physical Frailty (CGIC-PF)	Studenski et al. ⁵²	Qualitative and quantitative instrument development	6 expert panel members, 46 clinicians, 24 patients, and 12 caregivers (-) -	Community.	USA	N/A
Comprehensive Assessment of Frailty (CAF)	Sundermann et al. ⁵³	Validation study	400 (51.5) 80.1 (± 4.0)	Inpatient, population undergoing cardiac surgery	Germany	1
	Sundermann et al. ⁵⁴	Validation study	213 (51.6) 80.1 (± 4.0)	Inpatient, population undergoing elective and urgent cardiac surgery	Germany	12
	Sundermann et al. ⁵⁵	Validation study	450 (49.5) 79.0 (± 4.0)	Inpatient, population undergoing elective cardiac surgery	Germany	12
Comprehensive Frailty Assessment Instrument	De Witte et al. ⁵⁶	Validation study BAS	33,629 (51.0) 70.0 (-)	Community, general older adult population	Belgium	N/A
	De Witte et al. ⁵⁷	Validation study	178 (67.2) Median: 74.0	Community, general older adult population	Belgium	N/A
Continuous Composite Measure of Frailty	Buchman et al. ⁵⁸	Longitudinal study Rush Memory and Aging Project.	832 (74.4) 80.4 (± 6.9)	Community, general older adult population	USA	96

Frailty Assessment Tool	Study reference	Study Design & Data Set	Study Population: Total N (% female) Mean age years (S.D)	Setting	Country	Final follow Up (months)
Deficit-accumulation frailty index (DAFI)	Cohen et al. ⁵⁹	Prospective cohort multicentre study	500 (56.2) 73 (± 6.18)	Outpatient oncology practices, older adults with cancer receiving chemotherapy	USA	(-) Duration of chemotherapy
EASY-Care Two-step Older persons Screening (Easycare TOS)	Van Kempen et al. ⁶⁰	Observational pilot study	141 (62.0) 77.0 (±6.0)	Community, general older adult population - primary care	The Netherlands	N/A
	Van Kempen et al. ⁶¹	Validation study	587 (56) 77.0 (± 6.5)	Community, general older adult population - primary care	The Netherlands	N/A
	Van Kempen et al. ⁶²	Longitudinal primary care registry based cohort study	520 (56.5) 76.7 (± 4.8)	Community, general older adult population - primary care	The Netherlands	12
Edmonton Frail Scale (EFS)	Rolfson et al. ⁶³	Validation study	158 (53.0) 80.4 (±6.8)	Inpatient and community, referral for a CGA	Canada	N/A
	Haley et al. ⁶⁴	Validation study	86 (51.2) 81.3 (±7.7)	Inpatient, sub-acute hospital	Australia	1-2
	Graham et al. ⁶⁵	Pilot cohort study	183 (31.2) Aged: ≥ 65	Inpatient, acute coronary syndrome diagnosis	Canada	36
	Perna et al. ⁶⁶	Validation study	366 (68.6) 81.5 (± 6.5)	Inpatient, general older adult.	Italy	N/A
Electronic frailty index (eFI)	Clegg et al. ⁶⁷	Retrospective cohort study ResearchOne and THIN	931,541 (55) 75.0 (±7.3)	Community general older adult population - Primary care	UK	60
Evaluative Index for Physical Frailty (EFIP)	De Vries et al. ⁶⁸	Delphi study and observational study	24 (62.5) 78.0 (±6.9)	Mixed; community dwelling and residential care	The Netherlands	N/A
Frailty Groupe Iso-Ressource Evaluation (FRAGIRE) tool	Vernerey et al. ⁶⁹	Cross-sectional	385 (83.1) 81.9 (± 5.89)	Community, general older adult population	France	N/A

Frailty Assessment Tool	Study reference	Study Design & Data Set	Study Population: Total N (% female) Mean age years (S.D)	Setting	Country	Final follow Up (months)
Frailty Index- Comprehensive Geriatric Assessment (FI-CGA)	Jones et al. ²⁸	Secondary analysis of a 3-month randomized controlled trial MGAT	169 (-) Aged: ≥65	Community-dwelling frail elders	Canada	12
	Jones et al. ⁷⁰	Prospective cohort study CSHA	2305 (62.1) Aged: ≥65	Community, general older adult population	Canada	60
	Pilotto et al. ⁷¹	Prospective cohort study	2033 (57.0) 79.8 (±7.8)	Inpatient, 20 geriatric wards	Italy	12
	Ritt et al. ⁷²	Prospective cohort study	307 (67.7) Aged ≥65	Inpatient, Geriatric wards	Germany	6
	Ritt et al. ⁴⁴	Prospective cohort study	307 (67.7) Aged ≥65	Inpatient, Geriatric wards	Germany	12
Frailty predicts death One year after Cardiac Surgery Test (FORECAST)	Kobe et al. ⁷³	Validation study	130 (50) 83.3 (± 4.8)	Inpatient, cardiac surgery population undergoing elective transcatheter aortic valve replacement	Switzerland and German	1
	Sundermann et al. ⁵⁴	Validation study	213 (51.6) 80.1 (± 4.0)	Inpatient, population undergoing elective and urgent cardiac surgery	Germany	12
	Sundermann et al. ⁵⁵	Validation study	450 (49.5) 79.0 (± 4.0)	Inpatient, population undergoing elective cardiac surgery	Germany	12
Frailty Index	Mitnitski et al. ⁷⁴	Prospective cohort study CSHA	2914 (64.4) 82.0 (± 7.43)	Community, general older adult population	Canada	60

Frailty Assessment Tool	Study reference	Study Design & Data Set	Study Population: Total N (% female) Mean age years (S.D)	Setting	Country	Final follow Up (months)
Frailty Index Based on Common Laboratory Tests (FI-LAB)	Rockwood et al. ⁷⁵	Prospective cohort study CSHA	595 (67.9) 82.7 (\pm 8.0)	Institutional Long-Term Care facilities	Canada	72
Frailty Index based on Primary Care Data.	Drubbel et al. ⁷⁶	Cross-sectional, observational study	638 (52.8) 73.4 (\pm 9.2)	Community, general older adult population	The Netherlands	N/A
	Drubbel et al. ⁷⁷	Retrospective cohort study	1679 (59.0) 73.0 (-)	Community, general older adult population	The Netherlands	24
Frailty Index for Elders (FIFE)	Tocchi et al. ⁷⁸	Cross-sectional design validation study HRQL-ELTC	312 (77.6) Aged: \geq 65	Community, home based care and assisted living facilities	USA	N/A
Frail Non-Disabled Instrument (FiND)	Cesari et al. ⁷⁹	Validation study	45 (62.2) 72.5 (\pm 8.2)	Community, general older adult population	France	N/A
Frailty Screening Tool	Doba et al. ⁸⁰	Prospective cohort study	407 (54.8) 78.0 (\pm 4.0)	Community, recruitment from Life Planning Centre Foundation	Japan	60
FRAIL Scale	Woo et al. ⁸¹	Feasibility & validation study	816 (85.4) Aged: \geq 65	Community, general older adult population	China (Hong Kong)	-
Frailty Trait Scale (FTS)	Garcia-Garcia et al. ⁸²	Prospective cohort study TSHA	1829 (56.1) 75.1 (\pm 5.1)	Community, general older adult population	Spain	Mean = 42
FRESH-Screening Instrument	Kajsa et al. ⁸³	Cross-sectional study	161 (55) 82 (\pm 5.5)	Inpatient, emergency department.	Sweden	N/A
Groningen Frailty indicator (GFI)	Bielderman et al. ⁸⁴	Cross-sectional study	1508 (49.3) 75.0 (\pm 7.0)	Community, general older adult population	The Netherlands	N/A
	Coelho et al. ⁸⁵	Validation study	95 (67.4) 78.5 (\pm 6.2)	Community, general older adult population	Portugal	10
	Daniels et al. ⁸⁶	Longitudinal prospective cohort study	532 (58.5) 77.2 (\pm 5.5)	Community, general older adult population	The Netherlands	12

Frailty Assessment Tool	Study reference	Study Design & Data Set	Study Population: Total N (% female) Mean age years (S.D)	Setting	Country	Final follow Up (months)
	Hoogendijk et al. ⁸⁷	Cross-sectional. Dutch Identification of Frail Elderly Study	102 (56.9) 78.6 (±7.1)	Community, general older adult population - primary care	The Netherlands	N/A
	Kenig et al. ⁴³	Prospective cohort study	135 (55.5) 75.0 (± 6.6)	Inpatient, cancer diagnosis with solid abdominal tumours in need of surgery	Poland	N/A
	Metzelthin et al. ⁸⁸	Cross-sectional study	532 (58.5) 77.2 (±5.5)	Community, general older adult population	The Netherlands	N/A
	Meulendijks et al. ⁸⁹	Prospective cohort study	65 (35) 75 (-)	Outpatient pre-dialysis clinic, older adult population.	The Netherlands	12
	Schuurmans et al. ⁹⁰	Validation study	1338 (-) 74.2 (±6.59)	Community, general older adult population	The Netherlands	N/A
	Smets et al. ⁹¹	Observational prospective cohort study. KLIMOP	With cancer: 108 (65.0) median age 76 (70–88) Without cancer: 290 (64.0) median age 78 (70–97)	Inpatient and community, cancer diagnosis	Belgium & The Netherlands	N/A
	Tegels et al. ⁹²	Validation study	180 (41.1) 69.8 (-)	Inpatient, gastric adenocarcinoma diagnosis and underwent surgical treatment	The Netherlands	6
Guilley Frailty Instrument	Guilley et al. ⁹³	Longitudinal study. SWILSO-O	1225 (49.4) 81.9 (-)	Community, octogenarians	Switzerland	18
Head and Neck Cancer-Specific Frailty Index	Kwon et al. ⁹⁴	Prospective cohort study	165 (28.0) 71 (-)	Enrolled for hospital treatment, older adults with head and neck cancer diagnosis	Republic of Korea	24

Frailty Assessment Tool	Study reference	Study Design & Data Set	Study Population: Total N (% female) Mean age years (S.D)	Setting	Country	Final follow Up (months)
Inactivity and Weight Loss	Chin et al. ⁹⁵	Validation study. Zutphen Elderly Study (Longitudinal study).	450 (0.0) 75.0 (-)	Community, general older adult population	The Netherlands	36
	Chin et al. ⁹⁶	Validation study. SENECA (Longitudinal study).	849 (50.9) 77.0 (-)	Community, general older adult population, non-institutionalised, 9 European countries	Belgium (12%), Denmark (11%), France (10%), Italy (13%), The Netherlands (13%), Portugal (16%), Spain (8%), Switzerland (14%), Poland (2%)	48 - 60
INTER-FRAIL Study Questionnaire	De Bari et al. ⁹⁷	Prospective cohort study	1037 (-) Aged:≥70	Community, general older adult population	Italy	36 (n331)
InterRAI home care frailty scale	Morris et al. ⁹⁸	Secondary analysis design for assessment tool development interRAI Home Care	967,865 (60.4) 79 (-)	Community, general older adult population.	Australia, Belgium, Canada, China, Finland, Germany, Iceland, Italy, Japan, Netherlands, New Zealand, Sweden, United Kingdom, and the United States.	6
KLoSHA Frailty Index	Jung et al. ⁹⁹	Population based prospective cohort study	693 (50.8) 75.9 (±8.9)	Community, general older adult population	Korea	67

Frailty Assessment Tool	Study reference	Study Design & Data Set	Study Population: Total N (% female) Mean age years (S.D)	Setting	Country	Final follow Up (months)
		KLoSHA				
Marigliano–Cacciafesta Polypathological Scale (MPS)	Amici et al. ¹⁰⁰	Validation study	180 (63.8) 79.5 (-)	-	Italy	N/A
Maastricht Frailty Screening Tool for Hospitalized Patients (MFST-HP)	Warnier et al. ¹⁰¹	Cross-sectional study	79 (57) 76.7 (±5.4)	Inpatient (cardio-surgical, orthopaedic, internal medicine wards), non-emergency, aged ≥70 years	The Netherlands	N/A
Palumbo Frailty Index	Palumbo et al. ¹⁰²	Pooled analysis of 3 prospective studies. EMN GIMEMA	869 (-) 74 (-)	Newly diagnosed Multiple myeloma cohort, accessing hospital treatment.	Italy, the Czech Republic, the Netherlands	Median = 18
Paulson-Lichtenberg Frailty Index	Paulson et al. ¹⁰³	Prospective cohort study HRS	8844 (58.8) 74.5 (±7.04)	Community, general older adult population	USA	96
Phenotype of Frailty	Esrund et al. ³	Prospective cohort study SOF	6724 (100) 76.7(±4.9)	Community, general older adult population (female)	USA	108
	Fried et al. ⁹	Prospective cohort observational study. CHS	5317 (58) Aged: ≥65	Community, general older adult population	USA	84
	Kenig et al. ⁴³	Prospective cohort study	135 (55.5) 75.0 (± 6.6)	Inpatient, cancer diagnosis with solid abdominal tumours in need of surgery	Poland	N/A
	Kim et al. ¹⁰⁴	Validation study	162 (0.0) 83.7 (±6.1)	Male veterans, geriatric clinic	USA	N/A
	Kulminski et al. ¹⁰⁵	Longitudinal cohort Study	4721 (-) Aged: ≥65	Community, general older adult population	USA	132

Frailty Assessment Tool	Study reference	Study Design & Data Set	Study Population: Total N (% female) Mean age years (S.D)	Setting	Country	Final follow Up (months)
		CHS				
Predictive Physical Frailty Score	Carriere et al. ¹⁰⁶	Longitudinal cohort Study EPIDOS	545 (100) Median: 79 (IQR (76–81))	Community, general older adult population (female)	France	84
Prognostic Risk Score	Pijpers et al. ¹⁰⁷	Prospective cohort observational study	401 (62.1) 78.0 (±6.5)	Referral to the DOC-PG, psychogeriatric patients (80.8% diagnosed with dementia)	The Netherlands	36 (Median = 26)
Self-Reported Screening Tool for Frailty	Nunes et al. ¹⁰⁸	Cross sectional	433 (65.4) 85.7 (±5.1)	Community, general older adult population	Brazil	N/A
Self-Reported Questionnaire for Frailty	Yamada & Arai. ¹⁰⁹	Prospective cohort study.	5852 (50.3) 73.5 (±6.6)	Community, general older adult population	Japan	24
Self-Report Tool of Frailty	Barreto et al. ¹¹⁰	Validation study	398 (64.3) Aged: ≥60	Community, users of the medical insurance of the French national education system	France	36
SHARE Frailty Instrument (SHARE FI)	Romero-Ortuno et al. ¹¹¹	Longitudinal, population-based study SHARE	31,115 (55.6) 63.8 (-)	Community, general population aged ≥75 years	Austria, Germany, Sweden, Netherlands, Spain, Italy, France, Denmark, Greece, Switzerland, Belgium and Israel	Mean = 28.8
	Romero-Ortuno et al. ¹¹²	Longitudinal, population-based study	2221 (57.6) 65.6 (-)	Community, general population aged ≥50 years	Spain	Mean = 28.8

Frailty Assessment Tool	Study reference	Study Design & Data Set	Study Population: Total N (% female) Mean age years (S.D)	Setting	Country	Final follow Up (months)
		SHARE – Spanish sample				
	Romero-Ortuno et al. ¹¹³	Longitudinal, population-based study SHARE	17,567 (-) 63.3 (-)	Community, general population aged ≥50 years	Austria, Germany, Sweden, Netherlands, Spain, Italy, France, Denmark, Greece, Switzerland, Belgium and Israel	Mean = 28.8
	Romero-Ortuno et al. ¹¹⁴	Longitudinal, population-based study SHARE	28,162 (54.8) -	Community, general population aged ≥50 years	Austria, Germany, Sweden, Netherlands, Spain, Italy, France, Denmark, Greece, Switzerland, Belgium and Israel	Mean = 28.8
	Romero-Ortuno et al. ¹¹⁵	Longitudinal, population-based study SHARE	28,361 (54.9) -	Community, general population aged ≥50 years	Austria, Germany, Sweden, Netherlands, Spain, Italy, France, Denmark,	Mean = 28.8

Frailty Assessment Tool	Study reference	Study Design & Data Set	Study Population: Total N (% female) Mean age years (S.D)	Setting	Country	Final follow Up (months)
					Greece, Switzerland, Belgium and Israel	
SOF Frailty Criteria	Bilotta et al. ¹¹⁶	Prospective cohort study	265 (71.0) 81.5 (±6.8)	Community, referral to geriatric outpatient medicine clinic by GP	Italy	12
	De Buysers et al. ¹¹⁷	Community-based cohort study	191 (0) 78.4 (±3.5)	Community, ambulatory male population aged ≥74 years	Belgium	180
	Ensrud et al. ¹¹⁸	Prospective cohort study SOF	6701 (100) 76.7 (±4.8)	Community, general older adult population (female)	USA	Mean = 115.2
Strawbridge Frailty Measure	Strawbridge et al. ¹¹⁹	Longitudinal study Alameda County study	574 (57.0) 74.0 (-)	Community, general older adult population - non-institutionalised	USA	348
	Matthews et al. ¹²⁰	Pilot study	48 (29) 76.2 (-)	Community, older adult population - outpatient geriatric practice	USA	36
Tilburg Frailty Indicator (TFI)	Andreasen et al. ¹²¹	Qualitative semi-structured interview study	14 (50) 80.6 (-)	Community; recent acute hospital admission.	Denmark	N/A
	Andreasen et al. ¹²²	Translation and cultural adaption study	34 (62.0) 78.8 (± 6.9)	Community and inpatients older adult population	Denmark	N/A
	Coelho et al. ⁸⁵	Validation study	95 (67.4) 78.5 (±6.2)	Community, general older adult population	Portugal	10
	Coelho et al. ¹²³	Translation and transcultural adaption study. Cross-sectional study.	525 (75.8) 79.2 (± 7.3)	Community, general older adult population	Portugal	N/A

Frailty Assessment Tool	Study reference	Study Design & Data Set	Study Population: Total N (% female) Mean age years (S.D)	Setting	Country	Final follow Up (months)
	Daniels et al. ⁸⁶	Longitudinal prospective cohort study	532 (58.5) 77.2 (±5.5)	Community, general older adult population	The Netherlands	12
	Freitag et al. ¹²⁴	Cross cultural validation study	210 (62.0) 75.3 (±5.7)	Community, general older adult population	Germany	N/A
	Gobbens & Van Assen. ¹²⁵	Longitudinal study	269 (56.8) 80.2 (± 3.8)	Community, general older adult population	The Netherlands	48
	Gobbens et al. ¹²⁶	Cross-sectional study	484 (57.2) 80.3 (± 3.8)	Community, general older adult population	The Netherlands	N/A
	Gobbens et al. ²⁹	Cross-sectional study	Sample 1: 245 (54.7) 80.3(± 3.9) Sample 2: 234 (59.0) 80.2 (±3.7)	Community, general older adult population	The Netherlands	12 (n 343)
	Gobbens et al. ¹²⁷	Validation study	484 (56.8) 80.3 (± 3.8)	Community, general older adult population	The Netherlands	24 (n 266)
	Gobbens et al. ¹²⁸	Validation study	245(54.7) 80.3(± 3.9)	Community, general older adult population	The Netherlands	24 (n141)
	Metzelthin et al. ⁸⁸	Cross-sectional study	532 (58.5) 77.2 (±5.5)	Community, general older adult population	The Netherlands	N/A
	Roppolo et al. ¹²⁹	Cross-sectional validation study	267 (59.9) 73.4 (±6.0)	Community, general older adult population	Italy	N/A
	Uchmanowicz et al. ¹³⁰	Cross cultural validation study	100 (58) 68.2 (±6.5)	Community, general older adult population - Primary Care	Poland	N/A
WHIOS Multicomponent Measure (WHI-OS)	Woods et al. ¹³¹	Prospective cohort study	40,657 (100) Age range: 65-75	Community, general older adult population (female)	USA	70.8
9-Item Frailty Measure	Ravaglia et al. ¹³²	Prospective cohort population-based study CSBA	1007 (55.4) 74.7 (± 7.1)	Community, general older adult population	Italy	48

- = No available information, N/A = not applicable, CBSA = Conselice Study of Brain Ageing, ADL = Activities of daily living, CSHA = Canadian Study of Health and Aging, HRQL = Health related quality of life, CCCS = Calgary Cardiac and Cognition Study , BWHHS = The British Women's Heart and Health Study, GP = General Practitioner, CGA = Comprehensive Geriatric Assessment, THIN = The Health Improvement Network, MGAT = Mobile Geriatric Assessment Team trial, HRQL-ELTC = Health Related Quality of Life: Elders in Long-Term Care , KLIMOP = Dutch acronym for project on older cancer patients in Belgium and the Netherlands, SWILSO-O = Swiss Interdisciplinary Longitudinal Study on the Oldest Old, SENECA = Survey in Europe on Nutrition and the Elderly, a Concerted Action, KLoSHA = Korean Longitudinal Study on Health and Aging, HRS = Health and Retirement Study, EMN = The European Myeloma Network, GIMEMA = Gruppo Italiano Malattie Ematologiche dell'Adulto, CHS = Cardiovascular Health Study, SOF = Study of Osteoporotic Fractures, DOC -PG = Diagnostic Observation Centre for PsychoGeriatric patients, EPIDOS = EPIDemiologie de l'OSTéoporose (Epidemiology of Osteoporosis), SHARE = Survey of Health, Ageing and Retirement in Europe, BAS = Belgian Ageing Studies, TSHA = The Toledo Study for Healthy Aging, ALSWH = Australian Longitudinal Study on Women's Health, WHI-OS = Women's Health Initiative Observational Study.

Supplementary table 2: Results of COnsensus-based Standards for the selection of health Measurement Instruments (COSMIN) Checklist.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
Brief Clinical Instrument to Classify Frailty	Rockwood et al. ⁴²	-	-	-	-	-	2	-	X	-	Criterion Validity: Study reports assessment of criterion validity however this is rated as part of construct validity (hypothesis testing) according to COSMIN guidance.
	Kenig et al. ⁴³	-	-	-	-	-	1	-	-	-	Hypothesis Testing: Important methodological flaws in the design of the study noted; diagnosis of frailty via the detection of deficits in two or more domains of the Geriatric Assessment (GA) has limited theoretical grounding. No reliability or validity data for GA in this context.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
	Ritt et al. ⁴⁴	-	-	-	0	-	2	-	-	-	
Brief Frailty Index	Freiheit et al. ⁴⁵	-	-	-	2	-	2	-	-	-	
British Frailty Index	Kamaruzzaman et al. ⁴⁶	X	-	-	-	-	-	-	1	-	Internal Consistency: Not rated according to COSMIN guidance as the tool is based on a formative model. Criterion Validity: The criterion employed cannot be considered a reasonable gold standard. Correlations or AUC of ROC not calculated.
Care Partners-Frailty Index-Comprehensive	Goldstein et al. ⁴⁷	-	-	-	2	-	2	-	1	-	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
Geriatric Assessment (CP-FI-CGA)											
Clinical Frailty Scale	Rockwood et al. ⁴⁸	-	1	-	4	-	2	-	1	-	Reliability: Tool not administered by independent raters when assessing inter-rater reliability. Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
	Rockwood et al. ⁴⁹	-	-	-	-	-	1	-	1	-	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
											<p>Criterion Validity and Hypothesis Testing: Important methodological flaws in the design of the study noted; measurement properties of comparator instrument (Phenotype of frailty- Frail-CHS) significantly altered from original. No reliability or validity data for amended version.</p>
	Mitiniski et al. ⁵⁰	-	-	-	-	-	1	-	-	-	<p>Construct Validity: Important methodological flaws in the design of the study noted; measurement properties of comparator instrument (Phenotype of Frailty) significantly altered from original. No reliability or validity data for amended version.</p>

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
	Kang et al. ⁵¹	-	-	-	-	-	2	-	-	-	
Clinical Global Impression of Change in Physical Frailty	Studenski et al. ⁵²	-	1	-	2	-	-	-	-	-	Reliability: Inter-rater reliability assessed using case scenarios. Small sample size (n=24) for pilot testing. Likely selection bias in the focus group; all patients and carers selected by first author (all carers were female). Likely selection bias for participants of pilot test as the testing physicians chose two patients who they deemed to be frail to be tested.
Comprehensive Assessment of Frailty (CAF)	Sundermann et al. ⁵³	-	-	-	1	X	2	-	-	-	Content validity: Some aspects of content validity explored however there was limited assessment of whether all items are relevant for the

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
											study population and limited information regarding the theoretical foundation of the tool. Structural validity: Not rated according to COSMIN guidance as the tool is based on a formative model.
	Sundermann et al. ⁵⁴	-	-	-	-	-	2	-	-	-	
	Sundermann et al. ⁵⁵	-	-	-	-	-	2	-	-	-	
Comprehensive Frailty Assessment Instrument	De Witte et al. ⁵⁶	X	-	-	4	X	-	-	-	-	Internal Consistency & Structural Validity: Not rated according to COSMIN guidance as the tool is based on a formative model.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
	De Witte et al. ⁵⁷	X	-	-	-	-	2	-	1	-	Internal consistency: Not rated according to COSMIN guidance as the tool is based on a formative model. Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
Continuous Composite Measure of Frailty	Buchman et al. ⁵⁸	-	-	-	2	-	2	-	1	1	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard. Measurement properties of comparator instrument (Phenotype of Frailty) significantly altered from original. No reliability or validity data for amended version.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
											Responsiveness: The time interval between measurements was not adequately described.
Deficit-accumulation frailty index (DAFI)	Cohen et al. ⁵⁹	-	-	-	4	-	2	-	-	-	
EASY-Care Two-step Older persons Screening (Easycare TOS)	Van Kempen et al. ⁶⁰	-	1	-	-	-	2	-	1	-	Reliability: Small sample size (n=19) for reliability calculations. Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
	Van Kempen et al. ⁶¹	-	-	-	1	-	-	-	-	-	Content Validity: An assessment of whether all items are relevant for the purpose of the measurement instrument was completed however limited information available regarding other aspects of content validity.
	Van Kempen et al. ⁶²	-	-	-	-	-	-	-	-	2	
Edmonton Frail Scale	Rolfson et al. ⁶³	X	1	-	-	-	-	-	-	-	Internal Consistency: Not rated according to COSMIN guidance as the tool is based on a formative model. Reliability: Small sub sample size (n=18) for reliability calculations.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
	Haley et al. ⁶⁴	-	-	-	-	-	2	-	-	-	
	Graham et al. ⁶⁵	-	-	-	-	-	1	-	-	-	Hypothesis Testing: Important methodological flaws in the design of the study noted; tertile split was performed for reasons of sample size equality and not theoretically or empirically justified.
	Perna et al. ⁶⁶	-	-	-	-	-	2	-	-	-	
Electronic frailty index (eFI)	Clegg et al. ⁶⁷	-	-	-	4	-	3	-	X	-	Criterion Validity: Study reports assessment of criterion validity however this is rated as part of construct validity (hypothesis testing) according to COSMIN guidance.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
Evaluative Index for Physical Frailty	De Vries et al. ⁶⁸	-	1	-	2	-	1	-	-	-	Reliability and Hypothesis testing: Small sample (n=24)
Frailty Groupe Iso-Ressource Evaluation (FRAGIRE) tool	Vernerey et al. ⁶⁹	-	2	-	2	-	2	-	1	-	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard. Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
Frailty Index- Comprehensive Geriatric Assessment (FI-CGA)	Jones et al. ²⁸	-	2	-	2	-	2	-	-	-	
	Jones et al. ⁷⁰	-	-	-	-	-	2	-	1	-	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
	Pilotto et al. ⁷¹	-	-	-	-	-	2	-	-	-	
	Ritt et al. ⁷²	-	-	-	-	-	2	-	-	-	

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
	Ritt et al. ⁴⁴	-	-	-	-	-	2	-	-	-	
Frailty predicts death One year after Cardiac Surgery Test (FORECAST)	Kobe et al. ⁷³	-	-	-	-	-	3	-	-	-	
	Sundermann et al. ⁵⁴	-	-	-	-	-	2	-	-	-	
	Sundermann et al. ⁵⁵	-	-	-	-	-	2	-	-	-	
Frailty Index	Mitnitski et al. ⁷⁴	-	-	-	-	-	2	-	-	-	
Frailty Index Based on Common Laboratory Tests (FI-LAB)	Rockwood et al. ⁷⁵	-	-	-	-	-	2	-	-	-	

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
Frailty Index based on Primary Care Data.	Drubbel et al. ⁷⁶	-	-	-	2	-	2	-	1	-	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
	Drubbel et al. ⁷⁷	-	-	-	2	-	2	-	-	-	
Frailty Index for Elders (FIFE)	Tocchi et al. ⁷⁸	X	-	-	1	X	-	-	-	-	Internal Consistency & Structural Validity: Not rated according to COSMIN guidance as the tool is based on a formative model. Content Validity: Important methodological flaws in the design of the study noted; during item generation process potential variables excluded solely on the basis

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
											of information available in the parent data set.
Frail Non-Disabled Instrument (FiND)	Cesari et al. ⁷⁹	-	-	-	1	-	1	-	1	-	Content Validity, Hypothesis Testing and Criterion Validity: Important methodological flaws in the design of the study noted; Analysis of agreement between FiND and Phenotype of Frailty is flawed as FiND includes 2/5 of the Phenotype of Frailty items. This significantly affects the interpretation of the data.
Frailty Screening Tool	Doba et al. ⁸⁰	-	-	-	1	X	1	-	-	-	Structural Validity: Not rated according to COSMIN guidance as the tool is based on a formative model.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
											Content validity & Hypothesis Testing: Important methodological flaws in the design of the study noted; potential selection bias due to the exclusion of those older adults who had chronic comorbid illness. Potential underrepresentation of frailest adults due to the exclusion of participants from analysis whom were unable to engage in a final assessment. No clarity regarding the definition of 'cognitive change' item.
FRAIL Scale	Woo et al. ⁸¹	-	-	-	-	-	2	-	-	-	

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
Frailty Trait Scale	Garcia-Garcia et al. ⁸²	-	-	-	2	-	2	-	1	-	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
FRESH-Screening Instrument	Kajsa et al. ⁸³	-	-	-	-	-	2	-	-	-	
Groningen Frailty Indicator (GFI)	Bielderma et al. ⁸⁴	X	-	-	4	X	2	-	1	-	Internal Consistency and Structural Validity: Not rated according to COSMIN guidance as the tool is based on a formative model. Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
	Coelho et al. ⁸⁵	-	-	-	-	-	2	-	-	-	

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
	Daniels et al. ⁸⁶	-	-	-	-	-	2	-	1	2	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
	Hoogendijk et al. ⁸⁷	-	-	-	-	-	2	-	1	-	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
	Kenig et al. ⁴³	-	-	-	-	-	1	-	-	-	Hypothesis Testing: Important methodological flaws in the design of the study noted; diagnosis of frailty via the detection of deficits in two or more domains of the Geriatric Assessment has limited theoretical grounding. No reliability or validity data for GA in this context.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
	Metzelthin et al. ⁸⁸	X	-	-	-	X	3	-	1	-	Internal Consistency and Structural Validity: Not rated according to COSMIN guidance as the tool is based on a formative model. Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
	Meulendijks et al. ⁸⁹	-	-	-	-	-	2	-	-	-	
	Schuurmans et al. ⁹⁰	-	-	-	-	-	2	-	-	-	
	Smets et al. ⁹¹	-	-	-	-	-	2	-	1	-	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
	Tegels et al. ⁹²	-	-	-	-	-	2	-	-	-	
Guilley Frailty Instrument	Guilley et al. ⁹³	-	-	-	-	-	2	-	-	-	
Head and Neck Cancer-Specific Frailty Index	Kwon et al. ⁹⁴	-	-	-	2	-	2	-	-	-	
Inactivity and Weight Loss	Chin et al. ⁹⁵	-	-	-	2	-	2	-	-	-	
	Chin et al. ⁹⁶	-	-	-	-	-	2	-	-	-	
INTER-FRAIL Study Questionnaire	De Bari et al. ⁹⁷	-	-	-	2	-	2	-	-	-	
InterRAI home care frailty scale	Morris et al. ⁹⁸	X	-	-	2	-	2	-	1	-	Internal Consistency: Not rated according to COSMIN guidance as the tool is based on a formative model.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
											Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
KLoSHA Frailty Index	Jung et al. ⁹⁹	-	-	-	4	X	2	-	1	-	Structural Validity: Not rated according to COSMIN guidance as the tool is based on a formative model. Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
Marigliano–Cacciafesta Polypathological Scale	Amici et al. ¹⁰⁰	-	-	-	-	-	1	-	1	-	Hypothesis testing and Criterion Validity: Important methodological flaws in the design of the study noted; analysis consists purely of

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
											<p>correlations with limited theoretical justification.</p> <p>Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.</p>
Maastricht Frailty Screening Tool for Hospitalized Patients (MFST-HP)	Warnier et al. ¹⁰¹	-	3	-	2	-	2	-	-	-	
Palumbo Frailty Index	Palumbo et al. ¹⁰²	-	-	-	2	-	2	-	-	-	

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
Paulson-Lichtenberg Frailty Index	Paulson et al. ¹⁰³	-	-	-	2	-	3	-	-	-	
Phenotype of Frailty	Esrund et al. ³	-	-	-	-	-	2	-	-	-	
	Fried et al. ⁹	-	-	-	-	-	2	-	-	-	
	Kenig et al. ⁴³	-	-	-	-	-	1	-	-	-	Hypothesis Testing: Important methodological flaws in the design of the study noted; diagnosis of frailty via the detection of deficits in two or more domains of the Geriatric Assessment has limited theoretical grounding. No reliability or validity data for GA in this context.
	Kim et al. ¹⁰⁴	-	-	-	-	-	-	-	1	-	Criterion Validity: The criterion employed cannot be considered as a

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
											reasonable gold standard. No calculations of sensitivity and specificity.
	Kulminski et al. ¹⁰⁵	-	-	-	-	-	-	-	1	-	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard. Scoring changed from ordinal to continuous however only relative risk ratios were compared. No correlations or AUC of ROC calculated.
Predictive Physical Frailty Score	Carriere et al. ¹⁰⁶	-	-	-	-	X	2	-	-	-	Structural Validity: Not rated according to COSMIN guidance as the tool is based on a formative model.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
Prognostic Risk Score	Pijpers et al. ¹⁰⁷	-	-	-	-	X	2	-	-	-	Structural Validity: Not rated according to COSMIN guidance as the tool is based on a formative model.
Self-Reported Screening Tool for Frailty	Nunes et al. ¹⁰⁸	X	-	-	-	X	-	-	1	-	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard. Internal consistency and Structural Validity: Not rated according to COSMIN guidance as the tool is based on a formative model.
Self-Reported Questionnaire for Frailty	Yamada & Arai. ¹⁰⁹	-	-	-	-	-	2	-	-	-	

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
Self-Report Tool of Frailty	Barreto et al. ¹¹⁰	-	-	-	-	-	2	-	-	-	
SHARE Frailty Instrument	Romero-Ortuno et al. ¹¹¹	-	-	-	4	X	2	-	1	-	Structural Validity: Not rated according to COSMIN guidance as the tool is based on a formative model. Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
	Romero-Ortuno et al. ¹¹²	-	-	-	-	-	2	-	1	-	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
	Romero-Ortuno et al. ¹¹³	-	-	-	-	-	2	-	-	-	

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
	Romero-Ortuno et al. ¹¹⁴	-	-	-	-	-	2	-	-	-	
	Romero-Ortuno et al. ¹¹⁵	-	-	-	-	-	2	-	1	-	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
SOF Frailty Criteria	Bilotta et al. ¹¹⁶	-	-	-	-	-	2	-	-	-	
	De Buyser et al. ¹¹⁷	-	-	-	-	-	2	-	-	-	
	Ensrud et al. ¹¹⁸	-	-	-	-	-	2	-	1	-	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
Strawbridge Frailty Measure	Strawbridge et al. ¹¹⁹	-	-	-	1	-	-	-	-	-	Content validity: No assessment of whether all items are relevant for the target population and no assessment of whether all items together

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
											comprehensively reflect the measurement of frailty.
	Matthews et al. ¹²⁰	-	-	-	-	-	2	-	-	-	
Tilburg Frailty Indicator (TFI)	Andreasen et al. ¹²¹	-	-	-	-	-	-	1	-	-	Cross-Cultural Validity: Sample size less than 5 times the number of items included on the scale (5* 15 = 75, actual sample size included; 34)
	Andreasen et al. ¹²²	-	-	-	3	-	-	-	-	-	
	Coelho et al. ⁸⁵	-	-	-	-	-	2	-	-	-	
	Coelho et al. ¹²³	-	-	-	-	-	-	3	-	-	
	Daniels et al. ⁸⁶	-	-	-	-	-	2	-	1	2	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
	Freitag et al. ¹²⁴	-	-	-	-	-	-	2	-	-	
	Gobbens & Van Assen. ¹²⁵	-	-	-	-	-	2	-	-	-	
	Gobbens et al. ¹²⁶	-	-	-	1	-	-	-	-	-	Content Validity: An assessment of whether all items are relevant for the purpose of the measurement instrument was completed however there was limited information regarding other aspects of content validity.
	Gobbens et al. ²⁹	-	2	-	2	-	2	-	-	-	
	Gobbens et al. ¹²⁷	-	-	-	-	-	2	-	-	-	
	Gobbens et al. ¹²⁸	-	-	-	-	-	2	-	-	-	

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
	Metzelthin et al. ⁸⁸	X	-	-	-	X	3	-	1	-	Internal Consistency and Structural Validity: Not rated according to COSMIN guidance as the tool is based on a formative model. Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
	Roppolo et al. ¹²⁹	-	-	-	-	-	2	-	1	-	Criterion Validity: The criterion employed cannot be considered as a reasonable gold standard.
	Uchmanowicz et al. ¹³⁰	X	-	-	-	-	-	1	-	-	Internal Consistency: Not rated according to COSMIN guidance as the tool is based on a formative model.

Frailty Assessment Tool	Study reference	Internal Consistency	Reliability	Measurement Error	Content Validity	Structural validity	Hypotheses Testing	Cross-cultural Validity	Criterion validity	Responsiveness	Comments
											Cross Cultural Validity: Multiple-group confirmatory factor analysis not performed.
WHIOS Multicomponent Measure	Woods et al. ¹³¹	-	-	-	-	-	2	-	-	-	
9-Item Frailty Measure	Ravaglia et al. ¹³²	-	-	-	4	X	2	-	-	-	Structural Validity: Not rated according to COSMIN guidance as the tool is based on a formative model.

Key: 4: Excellent, 3: Good, 2: Fair, 1: Poor, -: No information, X: Not rated.

AUC: Area Under Curve. ROC: Receiver Operating Curve.

Supplementary Table 3: Definite construct overlap between multi-component frailty assessment tools and DSM-5 diagnostic criteria²⁹ for seven psychiatric disorders

Frailty Assessment Tool	Definite construct overlap observed between frailty assessment tool items and DSM-5 diagnostic criteria (see supplementary tables 4-10 for details)	Percentage of frailty assessment tool items for which definite construct overlap was observed with DSM-5 diagnostic criteria (n/total n)	Potential for an individual to be classified as frail or pre-frail based on mental health symptoms alone (see supplementary tables 4-10 for details)	Inclusion of psychological assessment items	Inclusion of items from functional mental health assessment tools
Brief Clinical Instrument to Classify Frailty ⁴²⁻⁴⁴	None	0.0% (0/4)	None	None	None
Brief Frailty Index ⁴⁵	Yes	40.0% (2/5)	Yes: Pre-frail	Psychosocial domain: Depressive symptoms.	Geriatric Depression Scale: All items to assess depressive symptoms.
British Frailty Index ⁴⁶	Yes	11.4% (4/35)	Tool has no clear cut point to distinguish between frail and robust.	Psychological problems domain: Diagnosis of depression, Feeling anxious/depressed/ sad, memory problems.	None
Care Partners-Frailty Index- Comprehensive Geriatric Assessment (CP-FI-CGA) ⁴⁷	Yes	15.9% (7/44)	Tool has no clear cut point to distinguish between frail and robust.	Depression and anxiety both included as frailty indicators.	None
Clinical Frailty Scale ⁴⁸⁻⁵¹	None	0.0% (0/7)	None	None	None
Clinical Global Impression of	Yes	13.1% (5/38)	Scoring based on clinical judgement.	Emotional status domain: Depression, Anxiety.	None

Frailty Assessment Tool	Definite construct overlap observed between frailty assessment tool items and DSM-5 diagnostic criteria (see supplementary tables 4-10 for details)	Percentage of frailty assessment tool items for which definite construct overlap was observed with DSM-5 diagnostic criteria (n/total n)	Potential for an individual to be classified as frail or pre-frail based on mental health symptoms alone (see supplementary tables 4-10 for details)	Inclusion of psychological assessment items	Inclusion of items from functional mental health assessment tools
Change in Physical Frailty (CGIC-PF) ⁵²					
Comprehensive Assessment of Frailty (CAF) ⁵³⁻⁵⁵	Yes	25.0% (3/12)	No	None	None
Comprehensive Frailty Assessment Instrument ^{56,57}	Yes	13.0% (3/23)	Tool has no clear cut point to distinguish between frail and robust.	Psychological domain: Feeling unhappy, Losing self-confidence, Unable to cope with problems, Feeling pressure, Feeling worth nothing anymore. Emotion domain: Experiences a general sense of emptiness, Misses having people around, Often feels rejected.	None
Continuous Composite Measure of Frailty ⁵⁸	Yes	25.0% (1/4)	Yes: Pre-frail	None	CES-D Scale: Two questions from a modified version used to assess fatigue.
Deficit-accumulation frailty index (DAFI) ⁵⁹	Yes	13.7% (7/51)	No	Psychosocial status domain: HADS depression score <11, HADS anxiety score <11 , HADS total score <15 , Social activity over the past 4 weeks (interference), Change in social activity over past 6 months	HADS: Psychosocial status domain.

Frailty Assessment Tool	Definite construct overlap observed between frailty assessment tool items and DSM-5 diagnostic criteria (see supplementary tables 4-10 for details)	Percentage of frailty assessment tool items for which definite construct overlap was observed with DSM-5 diagnostic criteria (n/total n)	Potential for an individual to be classified as frail or pre-frail based on mental health symptoms alone (see supplementary tables 4-10 for details)	Inclusion of psychological assessment items	Inclusion of items from functional mental health assessment tools
				(decrease), Comparison of social activity level with others their age.	
EASY-Care Two-step Older persons Screening (Easycare TOS) ⁶⁰⁻⁶²	Yes	12.5% (1/8)	Tool has no clear cut point to distinguish between frail and robust.	Mental wellbeing domain: Diagnosis of depression, anxiety or other psychiatric complaints as frailty indicators.	None
Edmonton Frail Scale (EFS) ⁶³⁻⁶⁶	Yes	18.2% (2/11)	No	Mood domain: Do you often feel sad or depressed?	None
Electronic frailty index (eFI) ⁶⁷	Yes	19.4% (7/36)	No	None	None
Evaluative Frailty Index for Physical Activity (EFIP) ⁶⁸	Yes	14.0% (7/50)	Tool has no clear cut point to distinguish between frail and robust.	Psychological functioning domain: Do you feel that everything you do is an effort and/or that you have difficulty getting started with activities, Do you feel depressed, Do you feel happy, Do you feel nervous or anxious, Are you afraid of falling over, Do you usually know what day and what time of the day it is, Do you have difficulty remembering when your appointments are, Do you have difficulty remembering names of family members and friends.	CESD-R: Do you feel that everything you do is an effort and/or that you have difficulty getting started with activities?

Frailty Assessment Tool	Definite construct overlap observed between frailty assessment tool items and DSM-5 diagnostic criteria (see supplementary tables 4-10 for details)	Percentage of frailty assessment tool items for which definite construct overlap was observed with DSM-5 diagnostic criteria (n/total n)	Potential for an individual to be classified as frail or pre-frail based on mental health symptoms alone (see supplementary tables 4-10 for details)	Inclusion of psychological assessment items	Inclusion of items from functional mental health assessment tools
Frailty Groupe Iso-Ressource Evaluation (FRAGIRE) tool ⁶⁹	Yes	21.0% (4/19)	Tool has no clear cut point to distinguish between frail and robust.	Psychological Domain: General well-being, happiness, tiredness, suicidal ideation.	None
Frailty Index-Comprehensive Geriatric Assessment (FI-CGA) ^{28,44,70-72}	Yes	50.0% (6/12)	Yes: Frail (mild)	Mood and motivation domain. Presence of Psychiatric illness also assessed for comorbidity score.	GDS: Assessment of mood.
Frailty predicts death One year after Cardiac Surgery Test (FORECAST) ^{54,55,73}	None	0.0% (0/5)	None	None	None
Frailty Index ⁷⁴	Yes	5.0% (1/20)	Tool has no clear cut point to distinguish between frail and robust.	None	None
Frailty Index Based on Common Laboratory Tests (FI-LAB) ⁷⁵	None	0.0% (0/23)	None	None	None
Frailty Index based on Primary Care Data ^{76,77}	Yes	19.4% (7/36)	Tool has no clear cut point to distinguish between frail and robust.	Psychological items: General Complaints -disability due to psychological illness and Neuraesthesia/surmenage, Depression, Psychiatric problems – Schizophrenia, Anxiety disorder/anxiety state.	None

Frailty Assessment Tool	Definite construct overlap observed between frailty assessment tool items and DSM-5 diagnostic criteria (see supplementary tables 4-10 for details)	Percentage of frailty assessment tool items for which definite construct overlap was observed with DSM-5 diagnostic criteria (n/total n)	Potential for an individual to be classified as frail or pre-frail based on mental health symptoms alone (see supplementary tables 4-10 for details)	Inclusion of psychological assessment items	Inclusion of items from functional mental health assessment tools
Frailty Index for Elders (FIFE). ⁷⁸	Yes	40.0% (4/10)	Yes: Frail & Pre-frail	Psychological domain: Would you say your health is fair or poor, Do you get tired easily.	None
Frail Non-Disabled Instrument (FiND) ⁷⁹	Yes	40.0% (2/5)	Yes: Frail	None	CES-D scale: Question used to establish exhaustion
Frailty Screening Tool ⁸⁰	Yes	25.0% (1/4)	Tool has no clear cut point to distinguish between frail and robust.	None	None
FRAIL Scale ⁸¹	Yes	40.0% (2/5)	No	Assessment of fatigue derived from PHQ-9 depression module. Presence of depression = higher fatigue scoring.	PHQ-9 depression module: Questions used for assessment of fatigue.
Frailty Trait Scale (FTS) ⁸²	Yes	75.0% (3/4)	Tool has no clear cut point to distinguish between frail and robust.	None	None
FRESH-Screening Instrument ⁸³	Yes	50.0% (2/4)	Tool has no clear cut point to distinguish between frail and robust.	None	None
Groningen Frailty indicator (GFI) ^{43,84-92}	Yes	20.0% (3/15)	No	Psychosocial domain: Does the patient sometimes experience an emptiness around him/her, Does the patient sometimes miss people around him/her, Does the patient sometimes feel abandoned, Has the	None

Frailty Assessment Tool	Definite construct overlap observed between frailty assessment tool items and DSM-5 diagnostic criteria (see supplementary tables 4-10 for details)	Percentage of frailty assessment tool items for which definite construct overlap was observed with DSM-5 diagnostic criteria (n/total n)	Potential for an individual to be classified as frail or pre-frail based on mental health symptoms alone (see supplementary tables 4-10 for details)	Inclusion of psychological assessment items	Inclusion of items from functional mental health assessment tools
				patient recently felt downhearted or sad, Has the patient recently felt nervous or anxious.	
Guilley Frailty Instrument ⁹³	Yes	29.4% (5/17)	No	None	Wang Self-Assessing Depression Scale: Energy domain questions.
Head and Neck Cancer-Specific Frailty Index ⁹⁴	Yes	22.2% (2/9)	No	Depression.	Beck Depression Inventory II: Depression.
Inactivity and Weight Loss ^{95,96}	Yes	50.0% (1/2)	No	None	None
INTER-FRAIL Study Questionnaire ⁹⁷	Yes	20.0% (2/10)	No	None	None
InterRAI home care frailty scale ⁹⁸	Yes	13.8% (4/29)	Tool has no clear cut point to distinguish between frail and robust.	None	None
KLoSHA Frailty Index ⁹⁹	None	0.0% (0/5)	None	None	None
Marigliano–Cacciafesta Polypathological Scale (MPS) ¹⁰⁰	Yes	18.2% (2/11)	Yes: Frail	Cognitive state and mood: Presence of depression (mild – major with psychosis), presence of anxiety.	Geriatric Depression Screening Scale: mood
Maastricht Frailty Screening Tool for	Yes	20.0% (3/15)	Tool has no clear cut point to distinguish between frail and robust.	Psychological domain: History of delirium, Memory problems,	None

Frailty Assessment Tool	Definite construct overlap observed between frailty assessment tool items and DSM-5 diagnostic criteria (see supplementary tables 4-10 for details)	Percentage of frailty assessment tool items for which definite construct overlap was observed with DSM-5 diagnostic criteria (n/total n)	Potential for an individual to be classified as frail or pre-frail based on mental health symptoms alone (see supplementary tables 4-10 for details)	Inclusion of psychological assessment items	Inclusion of items from functional mental health assessment tools
Hospitalized Patients (MFST-HP) ¹⁰¹				Depressive symptoms, Behavioural problems.	
Palumbo Frailty Index ¹⁰²	None	0.0% (0/4)	None	None	None
Paulson-Lichtenberg Frailty Index ¹⁰³	Yes	60.0% (3/5)	Yes: Frail & Pre-frail	None	None
Phenotype of Frailty ^{3,9,43,104,105}	Yes	80.0% (4/5)	Yes: Frail & Pre-frail	None	CES-D scale: Question used to establish exhaustion
Predictive Physical Frailty Score ¹⁰⁶	Yes	10.0% (1/10)	No	None	None
Prognostic Risk Score ¹⁰⁷	Yes	20.0% (2/10)	Potentially yes: Depending on age, sex and cohabitation of accommodation of the participant.	None	None
Self-Reported Screening Tool for Frailty ¹⁰⁸	Yes	80.0% (4/5)	Yes: Frail & Pre-frail	None	CES-D scale: Questions used to establish Fatigue
Self-Reported Questionnaire for Frailty ¹⁰⁹	Yes	60.0% (3/5)	Yes: Frail & Pre-frail	Emotions/exhaustion item: In the last 2 weeks have you felt tired without a reason?	None
Self-Report Tool of Frailty ¹¹⁰	Yes	25.0% (1/4)	Yes: Pre-frail	Psychosocial criteria: Dissatisfaction with endurance capacity/fatigue and muscle strength.	None

Frailty Assessment Tool	Definite construct overlap observed between frailty assessment tool items and DSM-5 diagnostic criteria (see supplementary tables 4-10 for details)	Percentage of frailty assessment tool items for which definite construct overlap was observed with DSM-5 diagnostic criteria (n/total n)	Potential for an individual to be classified as frail or pre-frail based on mental health symptoms alone (see supplementary tables 4-10 for details)	Inclusion of psychological assessment items	Inclusion of items from functional mental health assessment tools
SHARE Frailty Instrument (SHARE FI) ¹¹¹⁻¹¹⁵	Yes	80.0% (4/5)	Yes: Pre-frail	None	None
SOF Frailty Criteria ¹¹⁶⁻¹¹⁸	Yes	66.6% (2/3)	Yes: Frail & Pre-frail	None	None
Strawbridge Frailty Measure ^{119,120}	Yes	25.0% (4/16)	Yes: Frail	None	None
Tilburg Frailty Indicator (TFI) ^{29,85-87,121-130}	Yes	33.3% (5/15)	No	Psychological Domain: Do you have problems with your memory, Have you felt down during the last month, have you felt nervous or anxious during the last month, are you able to cope with problems well - 4/15 items	None
WHIOS Multicomponent Measure (WHI-OS) ¹³¹	Yes	50.0% (2/4)	No	None	None
9-Item Frailty Measure ¹³²	None	0.0% (0/9)	None	None	None

Abbreviations: GES = Geriatric Depression scale, PHQ-9 = Patient Health Questionnaire, HADS = Hospital Anxiety and Depression Scale, CESD = Centre for Epidemiologic Studies Depression Scale, CESD-R = Centre for Epidemiologic Studies Depression Scale Revised, BMI = Body Mass Index

Supplementary table 4: Definite construct overlap between existing multi-component frailty assessment tools and DSM-5 diagnostic criteria for Major Depressive Episode²⁹

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹									Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain $\geq 5\%$, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day.	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day	Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide	
Brief Clinical Instrument to Classify Frailty ⁴²⁻⁴⁴	None										None
Brief Frailty Index ⁴⁵	Cognitive impairment (Trail-Making Test Part B score of 1.5 SDs below the mean).								X		Yes: A score of $\geq 1/5$ = pre-frail.
	Depressive symptoms: (Geriatric Depression Scale >4)	X	X	X	X	X	X	X	X	X	
British Frailty Index ⁴⁶	Diagnosis of depression	X	X	X	X	X	X	X	X	X	No clear cut point to distinguish between frail and robust.
	Feeling anxious/ depressed/ sad	X									

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹									Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day.	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day	Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide	
Care Partners-Frailty Index- Comprehensive Geriatric Assessment (CP-FI-CGA) ⁴⁷	Sleep Problems				X						No clear cut point to distinguish between frail and robust.
	Depression	X	X	X	X	X	X	X	X	X	
	Exhaustion							X			
	Weight Loss (more than 10 pounds in six months)			X							
	Loss of Appetite			X							
Clinical Frailty Scale ⁴⁸⁻⁵¹	None										None
Clinical Global Impression of Change in Physical Frailty (CGIC-PF) ⁵²	Depression	X	X	X	X	X	X	X	X	X	Scoring based on clinical judgement.
	Weight loss			X							
	Self-report of energy and fatigue							X			
	Neuromotor (Speed of movement)					X					

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹									Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day.	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day	Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide	
Comprehensive Assessment of Frailty (CAF) ⁵³⁻⁵⁵	Self-reported exhaustion						X				No: Scores of ≤ 10/35 = not frail (robust)
	Slowness of gait speed					X					
Comprehensive Frailty Assessment Instrument ^{56,57}	Psychological domain: Feeling unhappy.	X									No clear cut point to distinguish between frail and robust.
	Psychological domain: Feeling worth nothing anymore.							X			
Continuous Composite Measure of Frailty ⁵⁸	Fatigue								X		Yes: Scores of 1-2 = pre-frail
Deficit-accumulation frailty index (DAFI) ⁵⁹	Depression	X	X	X	X	X	X	X	X	X	No: scores of ≤ 15/78 = not frail (robust).
	Weight loss: ≥5% of body weight			X							
	HADS depression score ≥11	X	X	X	X	X	X	X	X	X	
	HADS total score ≥11	X	X	X	X	X	X	X	X	X	

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹									Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day.	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day	Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide	
EASY-Care Two-step Older persons Screening (Easycare TOS) ⁶⁰⁻⁶²	Mental wellbeing: Depression	X	X	X	X	X	X	X	X	X	No clear cut point to distinguish between frail and robust. Scoring based on clinical judgement.
Edmonton Frail Scale (EFS) ⁶³⁻⁶⁶	Nutrition: Have you recently lost weight such that your clothing has become looser?			X							No: Scores ≤ 5/17 = not frail (robust).
	Mood: Do you often feel sad or depressed?	X									
Electronic frailty index (eFI) ⁶⁷	Memory and cognitive problems							X			No: Scores ≤ 4/36 = not fail (robust)
	Sleep disturbance				X						
	Weight loss and anorexia			X							
Evaluative Frailty Index for Physical Activity (EFIP) ⁶⁸	Psychological functioning: Do you feel that everything you do is an effort and/or that you have difficulty getting started with activities?						X				No clear cut point to distinguish between frail and robust.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹									Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day	Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide	
	Psychological functioning: Do you feel depressed?	X	X	X	X	X	X	X	X	X	
	Psychological functioning: Do you feel happy?	X									
	General health: Do you feel tired or do you lack energy?						X				
Frailty Groupe Iso-Ressource Evaluation (FRAGIRE) tool ⁶⁹	In the last months: Have you been happy most of the time/with life in general?	X									No clear cut point to distinguish between frail and robust.
	In the last months: Have you been tired during the day?						X				
	In the last months: Have you suffered so much that you start having suicide ideation?								X		
	Are you interested in sexual activity?		X								

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹									Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day.	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day	Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide	
Frailty Index-Comprehensive Geriatric Assessment (FI-CGA) ^{28,44,70-72}	Cognitive Status (cognitive impairment, no dementia)							X			Yes: A score of $\geq 7/20$ = mild frailty
	Problems with mood; GDS score ≥ 5	X	X	X	X	X	X	X	X	X	
	Problems with motivation		X								
	Nutrition; changes in weight.			X							
	Comorbidity index: Diagnosis of psychiatric illness	X	X	X	X	X	X	X	X	X	
Frailty predicts death One year after Cardiac Surgery Test (FORECAST) ^{54,55,73}	None										None
Frailty Index ⁷⁴	Changes in sleep				X						No clear cut point to distinguish between frail and robust.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹									Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day	Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide	
Frailty Index Based on Common Laboratory Tests (FI-LAB) ⁷⁵	None										None
Frailty Index based on Primary Care Data ^{76,77}	General Complaints: Weakness/tiredness general						X				No clear cut point to distinguish between frail and robust.
	General Complaints: Limited function/ disability (psychological)	X	X	X	X	X	X	X	X	X	
	Psychiatric problems: Depression	X	X	X	X	X	X	X	X	X	
	Sleep disturbance				X						
	Cognitive impairment: Problems with concentration								X		
	Weight problems: weight loss			X							

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹								Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone	
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day.	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day		Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide
Frailty Index for Elders (FIFE). ⁷⁸	Physiologic Domain: Without wanting to, have you lost or gained 10 lbs. in the last 6 months?			X							Yes: A score of $\geq 4/10$ = frail; A score of $\geq 1/10$ = pre-frail.
	Physiologic Domain: Do you have a poor appetite and quickly feel full when you eat?			X							
	Social domain: Did your physical health or emotional problems interfere with your social activities?		X								
	Psychological domain: Do you get tired easily?						X				
Frail Non-Disabled Instrument (FiND) ⁷⁹	Weight Loss: During the last year, have you involuntarily lost more than 4.5 kg?			X							Yes: A score of $\geq 1/3$ in the following domains; weight loss/exhaustion/sedentary behaviour = frail

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹								Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day	
	Exhaustion: How often in the last week did you feel than everything you did was an effort or that you could not get going?						X			
Frailty Screening Tool ⁸⁰	Subjective cognitive changes during the past 3 years.							X		No clear cut point to distinguish between frail and robust.
FRAIL Scale ⁸¹	Fatigue						X			Yes: A score of $\geq 2/5$ = pre-frail.
	Loss of weight			X						
Frailty Trait Scale (FTS) ⁸²	Loss of Weight			X						No clear cut point to distinguish between frail and robust.
	Slowness: Walking speed					X				
FRESH-Screening Instrument ⁸³	Do you get tired when taking a short (15–20 min) walk outside?						X			Yes: A score of $\geq 2/5$ = frail.
	Have you suffered any general fatigue or tiredness over the last 3 months?						X			

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹									Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day.	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day	Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide	
Groningen Frailty indicator (GFI) ^{43,84-92}	Nourishment: During the last 6 months has the patient lost a lot of weight unwillingly?			X							No: Score of $\geq 4/15$ = frail.
	Psychosocial: Has the patient recently felt downhearted or sad?	X	X					X			
Guilley Frailty Instrument ⁹³	Energy domain: Frequent tiredness						X				No: Scoring in ≥ 2 domains = frail.
	Energy domain: Frequent loss of appetite.			X							
Head and Neck Cancer-Specific Frailty Index ⁹⁴	Presence of body weight loss			X							No: Scoring on $\geq 3/9$ domains = frail
	Depression: Beck Depression Inventory II score of ≥ 14	X	X	X	X	X	X	X	X	X	
Inactivity and Weight Loss ^{95,96}	Weight Loss			X							No: Presence of 2/2 domains = frail.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹									Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day.	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day	Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide	
INTER-FRAIL Study Questionnaire ⁹⁷	Self-report of exhaustion						X				No: scores of ≤ 3/10 = not frail (robust)
	Unintentional weight loss in prior year			X							
InterRAI home care frailty scale ⁹⁸	Withdrawal From Activities of Interest		X								No clear cut point to distinguish between frail and robust.
	Weight Loss			X							
	Loss of Appetite			X							
KLoSHA Frailty Index ⁹⁹	None										None
Marigliano–Cacciafesta Polypathological Scale (MPS) ¹⁰⁰	Changes indicating compromised Metabolism and nutritional state			X							Yes: Medium/ Medium-severe polypathology scores = frailty
	Cognitive state and mood: Compromised cognition and/or moderate/severe depression, frequent anxiety.	X	X	X	X	X	X	X	X	X	

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹									Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day.	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day	Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide	
Maastricht Frailty Screening Tool for Hospitalized Patients (MFST-HP) ¹⁰¹	Patient involuntarily lost weight in the last three months			X							No clear cut point to distinguish between frail and robust.
	Patient suffers from a low mood or depression.	X	X	X	X	X	X	X	X	X	
Palumbo Frailty Index ¹⁰²	None										None
Paulson-Lichtenberg Frailty Index ¹⁰³	Wasting: A reported loss of at least 10% of body weight over a 2-year period			X							Yes: A score of $\geq 3/5$ = frail. A score of 1-2 = pre-frail
	Slowness: Because of a health problem, do you have any difficulty with getting up from a chair after sitting for long periods					X					

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹								Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone	
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day		Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide
	Fatigue or exhaustion: Have you had any of the following persistent or troublesome problems: severe fatigue or exhaustion?						X				
Phenotype of Frailty ^{3,9,43,104,105}	Shrinking: Unintentional weight loss			X							Yes: A score of $\geq 3/5$ = frail. A score of 1-2 = pre-frail.
	Poor endurance and energy: Self report of exhaustion						X				
	Slowness: timed walk test (15ft)					X					
Predictive Physical Frailty Score ¹⁰⁶	Nutrition: BMI, ≥ 27.6 kg/m ² – decrease in BMI			X							No: Does not meet the cut point for frailty risk score.
Prognostic Risk Score ¹⁰⁷	Elderly Mobility Scale score <20					X					Potentially depending on age and sex of the participant
	Process deficit in ADL.								X		

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹								Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone	
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day.	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day		Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide
Self-Reported Screening Tool for Frailty ¹⁰⁸	Weight loss			X							Yes: A score of $\geq 3/5$ = frail. A score of 1-2 = pre-frail
	Decreased walking speed					X					
	Fatigue						X				
Self-Reported Questionnaire for Frailty ¹⁰⁹	Have you lost 2 kg or more in the past 6 months?			X							Yes: scores of $\geq 3/5$ = frail. Scores of 1-2/5 = Pre-frail
	Do you think you walk slower than before?					X					
	In the last 2 weeks have you felt tired without a reason?						X				
Self-Report Tool of Frailty ¹¹⁰	Self-rated dissatisfaction with endurance/fatigue						X				Yes: scores of 1-2/4 = pre-frailty.
SHARE Frailty Instrument (SHARE FI) ¹¹¹⁻¹¹⁵	Exhaustion						X				Yes: possibility to be pre-frail
	Weight loss: loss of appetite			X							
	Slowness					X					

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹									Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day	Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide	
SOF Frailty Criteria ¹¹⁶⁻¹¹⁸	Weight loss			X							Yes: scores of $\geq 2/3$ = frail. Scores of $1/3$ = Pre-frail.
	Self-perceived reduced energy level						X				
Strawbridge Frailty Measure ^{119,120}	Nutritive functioning: loss of appetite.			X							Yes: Scoring difficulties in $\geq 2/4$ domains = frail.
	Nutritive functioning: unexplained weight loss			X							
	Cognitive functioning: difficulty paying attention.							X			
Tilburg Frailty Indicator (TFI) ^{29,85-87,121-130}	Unexplained weight loss			X							No: $\geq 5/15$ items = frail.
	Physical tiredness						X				
	Problems with memory							X			
	Feeling down	X									

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Major Depressive Episode ²⁹								Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Major Depressive Episode alone
		Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain a, or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)	Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)	Diminished ability to think or concentrate, or indecisiveness, nearly every day	
WHIOS Multicomponent Measure (WHI-OS) ¹³¹	Poor endurance /exhaustion						X			No: A score of $\geq 3/5$ = frailty.
	Unintentional weight loss			X						
9-Item Frailty Measure ¹³²	None									None

Key: X = Definite construct overlap present

Abbreviations: GES = Geriatric Depression scale, PHQ-9 = Patient Health Questionnaire, HADS = Hospital Anxiety and Depression Scale, CESD = Centre for Epidemiologic Studies Depression Scale, CESD-R = Centre for Epidemiologic Studies Depression Scale Revised, BMI = Body Mass Index

Supplementary table 5: Definite construct overlap between existing multi-component frailty assessment tools and DSM-5 diagnostic criteria for Bipolar Affective Disorder²⁹

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹													Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone		
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day		Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly every day
Brief Clinical Instrument to Classify Frailty ⁴²⁻⁴⁴	None																None
Brief Frailty Index ⁴⁵	Cognitive impairment (Trail-Making Test Part B score of 1.5 SDs below the mean).				X											X	Yes: A score of $\geq 3/5$ = frail. A score of $\geq 1/5$ = pre-frail.
	Depressive symptoms: (Geriatric Depression Scale >4)						X	X	X	X	X	X	X	X	X		

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹														Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone	
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt		Diminished ability to think or concentrate, or indecisiveness nearly everyday
British Frailty Index ⁴⁶	Diagnosis of depression							X	X	X	X	X	X	X	X	X	No clear cut point to distinguish between frail and robust.
	Feeling anxious/ depressed/ sad Chest pain							X									
Care Partners-Frailty Index-Comprehensive Geriatric Assessment (CP-FI-CGA) ⁴⁷	Sleep Problems		X								X						No clear cut point to distinguish between frail and robust.
	Depression							X	X	X	X	X	X	X	X	X	
	Exhaustion											X					
	Weight Loss (more than 10 pounds in six months)									X							
	Loss of Appetite									X							

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹													Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone			
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day		Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt
Clinical Frailty Scale ⁴⁸⁻⁵¹	None																	None
Clinical Global Impression of Change in Physical Frailty (CGIC-PF) ⁵²	Depression							X	X	X	X	X	X	X	X			Scoring based on clinical judgement.
	Weight loss									X								
	Self-report of energy and fatigue											X						
	Neuromotor (Speed of movement)											X						
Comprehensive Assessment of Frailty (CAF) ⁵³⁻⁵⁵	Self-reported exhaustion											X						No: Scores of ≤ 10/35 = not frail (robust)
	Slowness of gait speed											X						

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹														Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone		
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt		Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt
Comprehensive Frailty Assessment Instrument ^{56,57}	Psychological domain: Feeling unhappy.							X										
	Psychological domain: Feeling worth nothing anymore.													X				
Continuous Composite Measure of Frailty ⁵⁸	Fatigue												X					Yes: Scores of 1-2 = pre-frail
Deficit-accumulation frailty index (DAFI) ⁵⁹	Depression							X	X	X	X	X	X	X	X	X		No: scores of ≤ 15/78 = not frail (robust).
	Weight loss: ≥5% of body weight																	

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹														Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone	
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt		Diminished ability to think or concentrate, or indecisiveness nearly everyday
	HADS depression score ≥ 11							X	X	X	X	X	X	X	X	X	
	HADS total score ≥ 11							X	X	X	X	X	X	X	X	X	
EASY-Care Two-step Older persons Screening (Easycare TOS) ⁶⁰⁻⁶²	Mental wellbeing: Other psychiatric complaints	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	No clear cut point to distinguish between frail and robust. Scoring based on clinical judgement.
Edmonton Frail Scale (EFS) ⁶³⁻⁶⁶	Nutrition: Have you recently lost weight such that your clothing has become looser?									X							No: Scores $\leq 5/17$ = not frail (robust).

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹												Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone				
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day		Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt
	Mood: Do you often feel sad or depressed?							X										
Electronic frailty index (eFI) ⁶⁷	Memory and cognitive problems														X			No: Scores ≤ 4/36 = not fail (robust)
	Sleep disturbance		X															
	Weight loss and anorexia													X				
Evaluative Frailty Index for Physical Activity (EFIP) ⁶⁸	Psychological functioning: Do you feel that everything you do is an effort and/or that you have difficulty getting															X		No clear cut point to distinguish between frail and robust.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹													Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone				
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day		Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt	
	started with activities?																		
	Psychological functioning: Do you feel depressed?							X	X	X	X	X	X	X	X	X	X	X	X
	Psychological functioning: Do you feel happy?							X											
	General health: Do you feel tired or do you lack energy?												X						

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹													Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone				
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day		Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt	
Frailty Groupe Iso-Ressource Evaluation (FRAGIRE) tool ⁶⁹	In the last months: Have you been happy most of the time/with life in general?							X											No clear cut point to distinguish between frail and robust.
	In the last months: Have you been tired during the day?												X						
	In the last months: Have you suffered so much that you start having suicide ideation?																X		
	Are you interested in sexual activity?									X									

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹														Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone		
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt		Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt
Frailty Index-Comprehensive Geriatric Assessment (FI-CGA) ^{28,44,70-72}	Cognitive Status (cognitive impairment, no dementia)					X									X			Yes: A score of $\geq 7/20$ = mild frailty
	Problems with mood; GDS score ≥ 5							X	X	X	X	X	X	X	X	X	X	
	Problems with motivation								X									
	Nutrition; changes in weight.										X							
	Comorbidity index: Diagnosis of psychiatric illness	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹													Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone		
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day		Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday
Frailty predicts death One year after Cardiac Surgery Test (FORECAST) ^{54,55,73}	None																None
Frailty Index ⁷⁴	Changes in sleep		X									X					No clear cut point to distinguish between frail and robust.
Frailty Index Based on Common Laboratory Tests (FI-LAB) ⁷⁵	None																None
Frailty Index based on Primary Care Data ^{76,77}	General Complaints: Weakness/ tiredness general												X				No clear cut point to distinguish between frail and robust.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹															Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone	
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday		Recurrent thoughts of death recurrent suicidal ideation, suicide attempt
	General Complaints: Limited function/ disability (psychological)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	Psychiatric problems; Depression							X	X	X	X	X	X	X	X	X	X	
	Sleep disturbance		X										X					
	Cognitive impairment: Problems with concentration					X									X			
	Weight problems: weight loss																X	

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹													Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone				
		Recurrent thoughts of death recurrent suicidal ideation, suicide attempt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Feelings or worthlessness or excessive or inappropriate guilt	Fatigue or loss of energy nearly every day	Psychomotor agitation or retardation nearly every day	Insomnia or hypersomnia nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Depressed mood most of the day, nearly every day	Excessive involvement in activities that have a high potential for painful consequences	Increase in goal directed activity, or psychomotor agitation	Distractibility	Flight of ideas or subjective experience that thoughts are racing		More talkative than usual or pressure to keep talking	Decreased need for sleep	Inflated self-esteem or grandiosity	
Frailty Index for Elders (FIFE). ⁷⁸	Physiologic Domain: Without wanting to, have you lost or gained 10 lbs. in the last 6 months?											X							Yes: A score of $\geq 4/10$ = frail; A score of $\geq 1/10$ = pre-frail.
	Physiologic Domain: Do you have a poor appetite and quickly feel full when you eat?											X							

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹													Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone		
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day		Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday
	Social domain: Did your physical health or emotional problems interfere with your social activities?					X			X								
	Psychological domain: Do you get tired easily?												X				
Frail Non-Disabled Instrument (FiND) ⁷⁹	Weight Loss: During the last year, have you involuntarily lost more than 4.5 kg?																Yes: A score of $\geq 1/3$ in the following domains; weight loss/exhaustion/sedentary behaviour = frail

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹													Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone			
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day		Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt
	Exhaustion: How often in the last week did you feel that everything you did was an effort or that you could not get going?												X					
Frailty Screening Tool ⁸⁰	Subjective cognitive changes during the past 3 years.				X												X	No clear cut point to distinguish between frail and robust.
FRAIL Scale ⁸¹	Fatigue												X					Yes: A score of $\geq 2/5$ = pre-frail.
	Loss of weight												X					

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹												Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone				
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day		Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt
Frailty Trait Scale (FTS) ⁸²	Loss of Weight									X								No clear cut point to distinguish between frail and robust.
	Slowness: Walking speed											X						
FRESH-Screening Instrument ⁸³	Do you get tired when taking a short (15–20 min) walk outside?												X					Yes: A score of $\geq 2/5$ = frail.
	Have you suffered any general fatigue or tiredness over the last 3 months?													X				

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹													Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone				
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day		Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt	
Groningen Frailty indicator (GFI) ^{43,84-92}	Nourishment: During the last 6 months has the patient lost a lot of weight unwillingly?									X									No: Score of $\geq 4/15$ = frail.
	Psychosocial: Has the patient recently felt downhearted or sad?							X	X					X					
Guilley Frailty Instrument ⁹³	Energy domain: Frequent tiredness												X						No: Scoring in ≥ 2 domains = frail.
	Energy domain: Frequent loss of appetite.												X						

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹													Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone			
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day		Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt
Head and Neck Cancer-Specific Frailty Index ⁹⁴	Presence of body weight loss									X								No: Scoring on ≥3/9 domains = frail
	Depression: Beck Depression Inventory II score of ≥14						X	X	X	X	X	X	X	X	X	X		
Inactivity and Weight Loss ^{95,96}	Weight Loss									X								No: Presence of 2/2 domains = frail.
INTER-FRAIL Study Questionnaire ⁹⁷	Self-report of exhaustion											X						No: scores of ≤ 3/10 = not frail (robust)
	Unintentional weight loss in prior year									X								
InterRAI home care frailty scale ⁹⁸	Withdrawal From Activities of Interest							X										No clear cut point to distinguish between frail and robust.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹													Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone			
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day		Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt
	Weight Loss									X								
	Loss of Appetite									X								
KLoSHA Frailty Index ⁹⁹	None																	None
Marigliano–Cacciafesta Polypathological Scale (MPS) ¹⁰⁰	Changes indicating compromised Metabolism and nutritional state									X								Yes: Medium/Medium-severe polypathology scores = frailty
	Cognitive state and mood: Compromised cognition and/or moderate/severe depression, frequent anxiety.							X	X	X	X	X	X	X	X	X	X	

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹													Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone			
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day		Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt
Maastricht Frailty Screening Tool for Hospitalized Patients (MFST-HP) ¹⁰¹	Patient involuntarily lost weight in the last three months									X								No clear cut point to distinguish between frail and robust.
	Patient suffers from a low mood or depression						X	X	X	X	X	X	X	X	X	X		
Palumbo Frailty Index ¹⁰²	None																	None
Paulson-Lichtenberg Frailty Index ¹⁰³	Wasting: A reported loss of at least 10% of body weight over a 2-year period									X								Yes: A score of $\geq 3/5$ = frail. A score of 1-2 = pre-frail

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹													Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone			
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day		Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt
Phenotype of Frailty ^{3,9,43,104,105}	Shrinking: Unintentional weight loss									X								Yes: A score of $\geq 3/5$ = frail. A score of 1-2 = pre-frail.
	Poor endurance and energy: Self report of exhaustion											X						
	Slowness: timed walk test (15ft)											X						
Predictive Physical Frailty Score ¹⁰⁶	Nutrition: BMI, ≥ 27.6 kg/m ² – decrease in BMI									X								No: Does not meet the cut point for frailty risk score.
Prognostic Risk Score ¹⁰⁷	Elderly Mobility Scale score <20											X						Potentially depending on age and sex of the participant.
	Process deficit in ADL.													X				

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹												Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone				
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day		Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt
Self-Reported Screening Tool for Frailty ¹⁰⁸	Weight loss									X								Yes: A score of $\geq 3/5$ = frail. A score of 1-2 = pre-frail.
	Decreased walking speed											X						
	Fatigue												X					
Self-Reported Questionnaire for Frailty ¹⁰⁹	Have you lost 2 kg or more in the past 6 months?									X								Yes: scores of $\geq 3/5$ = frail. Scores of 1-2/5 = Pre-frail
	Do you think you walk slower than before?											X						
	In the last 2 weeks have you felt tired without a reason?												X					

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹												Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone				
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day		Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt
Self-Report Tool of Frailty ¹¹⁰	Self-rated dissatisfaction with endurance/fatigue												X					Yes: scores of 1-2/4 = pre-frailty.
SHARE Frailty Instrument (SHARE FI) ¹¹¹⁻¹¹⁵	Exhaustion												X					Yes: possibility to be pre-frail.
	Weight loss: loss of appetite												X					
SOF Frailty Criteria ¹¹⁶⁻¹¹⁸	Slowness												X					Yes: scores of ≥2/3 = frail Scores of 1/3 = Pre-frail.
	Weight loss																	
Strawbridge Frailty Measure ^{119,120}	Self-perceived reduced energy level																	Yes: Scoring difficulties in ≥2/4 domains = frail.
	Nutritive functioning: loss of appetite.												X					

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹													Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone		
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day	Fatigue or loss of energy nearly every day		Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday
	Nutritive functioning: unexplained weight loss									X							
	Cognitive functioning: difficulty paying attention.				X										X		
Tilburg Frailty Indicator (TFI) ^{29,85-87,121-130}	Unexplained weight loss									X							
	Physical tiredness												X				
	Problems with memory														X		

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Bipolar I Disorder ²⁹												Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Bipolar I Disorder alone				
		Inflated self-esteem or grandiosity	Decreased need for sleep	More talkative than usual or pressure to keep talking	Flight of ideas or subjective experience that thoughts are racing	Distractibility	Increase in goal directed activity, or psychomotor agitation	Excessive involvement in activities that have a high potential for painful consequences	Depressed mood most of the day, nearly every day	Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day	Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day	Insomnia or hypersomnia nearly every day	Psychomotor agitation or retardation nearly every day		Fatigue or loss of energy nearly every day	Feelings of worthlessness or excessive or inappropriate guilt	Diminished ability to think or concentrate, or indecisiveness nearly everyday	Recurrent thoughts of death recurrent suicidal ideation, suicide attempt
	Feeling down							X										
WHIOS Multicomponent Measure (WHI-OS) ¹³¹	Poor endurance /exhaustion												X					No: A score of ≥3/5 = frailty
	Unintentional weight loss													X				
9-Item Frailty Measure ¹³²	None																	None

Key: X = Definite construct overlap present

Abbreviations: GES = Geriatric Depression scale, PHQ-9 = Patient Health Questionnaire, HADS = Hospital Anxiety and Depression Scale, CESD = Centre for Epidemiologic Studies Depression Scale, CESD-R = Centre for Epidemiologic Studies Depression Scale Revised, BMI = Body Mass Index

Supplementary table 6: Definite construct overlap between existing multi-component frailty assessment tools and DSM-5 diagnostic criteria for Schizophrenia²⁹

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Schizophrenia ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Schizophrenia alone
		Delusions	Hallucinations	Disorganized speech (e.g. frequent derailment or incoherence)	Grossly disorganised or catatonic behaviour	Negative symptoms (diminished emotional expression or Avolition, Alogia, Anhedonia, Asociality)	
Brief Clinical Instrument to Classify Frailty ⁴²⁻⁴⁴	None						None
Brief Frailty Index ⁴⁵	None						None
British Frailty Index ⁴⁶	None						None
Care Partners-Frailty Index- Comprehensive Geriatric Assessment (CP-FI-CGA) ⁴⁷	Speech Problems			X			No clear cut point to distinguish between frail and robust.
Clinical Frailty Scale ⁴⁸⁻⁵¹	None						None
Clinical Global Impression of	None						None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Schizophrenia ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Schizophrenia alone
		Delusions	Hallucinations	Disorganized speech (e.g. frequent derailment or incoherence)	Grossly disorganised or catatonic behaviour	Negative symptoms (diminished emotional expression or Avolition, Alogia, Anhedonia, Asociality)	
Change in Physical Frailty (CGIC-PF) ⁵²							
Comprehensive Assessment of Frailty (CAF) ⁵³⁻⁵⁵	Low activity levels					X	No: Scores of ≤ 10/35 = not frail (robust)
Comprehensive Frailty Assessment Instrument ^{56,57}	None						None
Continuous Composite Measure of Frailty ⁵⁸	None						None
Deficit-accumulation frailty index (DAFI) ⁵⁹	None						None
EASY-Care Two-step Older persons Screening (Easycare TOS) ⁶⁰⁻⁶²	Mental wellbeing: Other psychiatric complaints	X	X	X	X	X	No clear cut point to distinguish between frail and robust. Scoring based on clinical judgement.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Schizophrenia ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Schizophrenia alone
		Delusions	Hallucinations	Disorganized speech (e.g. frequent derailment or incoherence)	Grossly disorganised or catatonic behaviour	Negative symptoms (diminished emotional expression or Avolition, Alogia, Anhedonia, Asociality)	
Edmonton Frail Scale (EFS) ⁶³⁻⁶⁶	None						None
Electronic frailty index (eFI) ⁶⁷	Activity limitation					X	No: Scores $\leq 4/36$ = not frail (robust)
Evaluative Frailty Index for Physical Activity (EFIP) ⁶⁸	Psychological functioning: Do you feel that everything you do is an effort and/or that you have difficulty getting started with activities?					X	No clear cut point to distinguish between frail and robust.
Frailty Groupe Iso-Ressource Evaluation (FRAGIRE) tool ⁶⁹	None						None
Frailty Index-Comprehensive Geriatric Assessment (FI-CGA) ^{28,44,70-72}	Problems with motivation					X	Yes: A score of $\geq 7/20$ = mild frailty
	Problems with communication			X		X	
	Comorbidity index: Diagnosis of psychiatric illness	X	X	X	X	X	

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Schizophrenia ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Schizophrenia alone
		Delusions	Hallucinations	Disorganized speech (e.g. frequent derailment or incoherence)	Grossly disorganised or catatonic behaviour	Negative symptoms (diminished emotional expression or Avolition, Alogia, Anhedonia, Asociality)	
Frailty predicts death One yearR after CARDiac Surgery Test (FORECAST) ^{54,55,73}	None						None
Frailty Index ⁷⁴	None						None
Frailty Index Based on Common Laboratory Tests (FI-LAB) ⁷⁵	None						None
Frailty Index based on Primary Care Data ^{76,77}	General Complaints: Limited function/ disability (psychological)	X	X	X	X	X	No clear cut point to distinguish between frail and robust.
	General Complaints: Neurasthenia/ surmenage					X	

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Schizophrenia ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Schizophrenia alone
		Delusions	Hallucinations	Disorganized speech (e.g. frequent derailment or incoherence)	Grossly disorganised or catatonic behaviour	Negative symptoms (diminished emotional expression or Avolition, Alogia, Anhedonia, Asociality)	
	Psychiatric problems: Schizophrenia	X	X	X	X	X	
Frailty Index for Elders (FIFE). ⁷⁸	Social domain: Did your physical health or emotional problems interfere with your social activities?					X	A score of $\geq 1/10$ = pre-frail.
Frail Non-Disabled Instrument (FiND) ⁷⁹	Sedentary behaviour: Which is your level of physical activity - none / mainly sedentary					X	Yes: A score of $\geq 1/3$ in the following domains; weight loss/exhaustion/sedentary behaviour = frail
Frailty Screening Tool ⁸⁰	None						None
FRAIL Scale ⁸¹	None						None
Frailty Trait Scale (FTS) ⁸²	Low levels of activity					X	No clear cut point to distinguish between frail and robust.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Schizophrenia ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Schizophrenia alone
		Delusions	Hallucinations	Disorganized speech (e.g. frequent derailment or incoherence)	Grossly disorganised or catatonic behaviour	Negative symptoms (diminished emotional expression or Avolition, Alogia, Anhedonia, Asociality)	
FRESH-Screening Instrument ⁸³	None						None
Groningen Frailty indicator (GFI) ^{43,84-92}	None						None
Guilley Frailty Instrument ⁹³	None						None
Head and Neck Cancer-Specific Frailty Index ⁹⁴	None						None
Inactivity and Weight Loss ^{95,96}	None						None
INTER-FRAIL Study Questionnaire ⁹⁷	None						None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Schizophrenia ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Schizophrenia alone
		Delusions	Hallucinations	Disorganized speech (e.g. frequent derailment or incoherence)	Grossly disorganised or catatonic behaviour	Negative symptoms (diminished emotional expression or Avolition, Alogia, Anhedonia, Asociality)	
InterRAI home care frailty scale ⁹⁸	None						None
KLoSHA Frailty Index ⁹⁹	None						None
Marigliano–Cacciafesta Polypathological Scale (MPS) ¹⁰⁰	None						None
Maastricht Frailty Screening Tool for Hospitalized Patients (MFST-HP) ¹⁰¹	None						None
Palumbo Frailty Index ¹⁰²	None						None
Paulson-Lichtenberg Frailty Index ¹⁰³	None						None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Schizophrenia ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Schizophrenia alone
		Delusions	Hallucinations	Disorganized speech (e.g. frequent derailment or incoherence)	Grossly disorganised or catatonic behaviour	Negative symptoms (diminished emotional expression or Avolition, Alogia, Anhedonia, Asociality)	
Phenotype of Frailty ^{3,9,43,104,105}	Low physical activity levels					X	Yes: A score of 1-2 = pre-frail.
Predictive Physical Frailty Score ¹⁰⁶	None						None
Prognostic Risk Score ¹⁰⁷	None						None
Self-Reported Screening Tool for Frailty ¹⁰⁸	Decreased physical activity level					X	A score of 1-2 = pre-frail.
Self-Reported Questionnaire for Frailty ¹⁰⁹	None						None
Self-Report Tool of Frailty ¹¹⁰	None						None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Schizophrenia ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Schizophrenia alone
		Delusions	Hallucinations	Disorganized speech (e.g. frequent derailment or incoherence)	Grossly disorganised or catatonic behaviour	Negative symptoms (diminished emotional expression or Avolition, Alogia, Anhedonia, Asociality)	
SHARE Frailty Instrument (SHARE FI) ¹¹¹⁻¹¹⁵	Low activity levels					X	No
SOF Frailty Criteria ¹¹⁶⁻¹¹⁸	None						None
Strawbridge Frailty Measure ^{119,120}	None						None
Tilburg Frailty Indicator (TFI) ^{29,85-87,121-130}	None						None
WHIOS Multicomponent Measure (WHI-OS) ¹³¹	None						None
9-Item Frailty Measure ¹³²	None						None

Key: X = Definite construct overlap present

Supplementary table 7: Definite construct overlap between existing multi-component frailty assessment tools and DSM-5 diagnostic criteria for Generalised Anxiety Disorder²⁹

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Generalized Anxiety Disorder ²⁹								Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms Generalised Anxiety Disorder alone
		Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities	The individual finds it difficult to control the worry	Restlessness or feeling keyed up or on edge	Being easily fatigued	Difficulty concentrating or mind going blank	Irritability	Muscle tension	Sleep disturbance (difficulty falling or staying asleep, or restless, unsatisfying sleep)	
Brief Clinical Instrument to Classify Frailty ⁴²⁻⁴⁴	None									None
Brief Frailty Index ⁴⁵	Cognitive impairment (Trail-Making Test Part B score of 1.5 SDs below the mean).					X				Yes: A score of $\geq 3/5$ = frail. A score of $\geq 1/5$ = pre-frail.
	Depressive symptoms: (Geriatric Depression Scale >4)				X	X	X		X	
British Frailty Index ⁴⁶	Feeling anxious/ depressed/ sad	X	X	X	X	X	X	X	X	No clear cut point to distinguish between frail and robust.
Care Partners-Frailty Index-Comprehensive Geriatric Assessment (CP-FI-CGA) ⁴⁷	Sleep Problems								X	No clear cut point to distinguish between frail and robust.
	Exhaustion				X					
	Anxiety	X	X	X	X	X	X	X	X	

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Generalized Anxiety Disorder ²⁹								Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms Generalised Anxiety Disorder alone
		Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities	The individual finds it difficult to control the worry	Restlessness or feeling keyed up or on edge	Being easily fatigued	Difficulty concentrating or mind going blank	Irritability	Muscle tension	Sleep disturbance (difficulty falling or staying asleep, or restless, unsatisfying sleep)	
Clinical Frailty Scale ⁴⁸⁻⁵¹	None									None
Clinical Global Impression of Change in Physical Frailty (CGIC-PF) ⁵²	Anxiety	X	X	X	X	X	X	X	X	Scoring based on clinical judgement.
	Self-report of energy and fatigue				X					
Comprehensive Assessment of Frailty (CAF) ⁵³⁻⁵⁵	Self-reported exhaustion				X					No: Scores of $\leq 10/35$ = not frail (robust)
Comprehensive Frailty Assessment Instrument ^{56,57}	Psychological domain: Feeling pressure.			X						No clear cut point to distinguish between frail and robust.
Continuous Composite Measure of Frailty ⁵⁸	Fatigue				X					Yes: Scores of 1-2 = prefrail
Deficit-accumulation frailty index (DAFI) ⁵⁹	HADS anxiety score ≥ 11	X	X	X	X	X	X	X	X	No: scores of $\leq 15/78$ = not frail (robust).
	HADS total score ≥ 11	X	X	X	X	X	X	X	X	

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Generalized Anxiety Disorder ²⁹								Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms Generalised Anxiety Disorder alone
		Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities	The individual finds it difficult to control the worry	Restlessness or feeling keyed up or on edge	Being easily fatigued	Difficulty concentrating or mind going blank	Irritability	Muscle tension	Sleep disturbance (difficulty falling or staying asleep, or restless, unsatisfying sleep)	
EASY-Care Two-step Older persons Screening (Easycare TOS) ⁶⁰⁻⁶²	Mental wellbeing: Anxiety	X	X	X	X	X	X	X	X	No clear cut point to distinguish between frail and robust. Scoring based on clinical judgement.
Edmonton Frail Scale (EFS) ⁶³⁻⁶⁶	None									None
Electronic frailty index (eFI) ⁶⁷	Memory and cognitive problems					X				No: Scores ≤ 4/36 = not fail (robust)
	Sleep disturbance								X	
Evaluative Frailty Index for Physical Activity (EFIP) ⁶⁸	Psychological functioning: Do you feel nervous or anxious?	X	X	X	X	X	X	X	X	No clear cut point to distinguish between frail and robust.
	General health: Do you feel tired or do you lack energy?				X					
Frailty Groupe Iso-Ressource Evaluation (FRAGIRE) tool ⁶⁹	In the last months: Have you been tired during the day?				X					No clear cut point to distinguish between frail and robust.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Generalized Anxiety Disorder ²⁹								Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms Generalised Anxiety Disorder alone
		Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities	The individual finds it difficult to control the worry	Restlessness or feeling keyed up or on edge	Being easily fatigued	Difficulty concentrating or mind going blank	Irritability	Muscle tension	Sleep disturbance (difficulty falling or staying asleep, or restless, unsatisfying sleep)	
Frailty Index-Comprehensive Geriatric Assessment (FI-CGA) ^{28,44,70-72}	Cognitive Status (cognitive impairment, no dementia)					X				Yes: A score of $\geq 7/20$ = mild frailty
	Comorbidity index: Diagnosis of psychiatric illness	X	X	X	X	X	X	X	X	
Frailty predicts death One year after CArdiac Surgery Test (FORECAST) ^{54,55,73}	None									None
Frailty Index ⁷⁴	Changes in sleep								X	No clear cut point to distinguish between frail and robust.
Frailty Index Based on Common Laboratory Tests (FI-LAB) ⁷⁵	None									None
Frailty Index based on Primary Care Data ^{76,77}	General Complaints: Weakness/tiredness general				X					No clear cut point to distinguish between frail and robust.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Generalized Anxiety Disorder ²⁹								Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms Generalised Anxiety Disorder alone
		Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities	The individual finds it difficult to control the worry	Restlessness or feeling keyed up or on edge	Being easily fatigued	Difficulty concentrating or mind going blank	Irritability	Muscle tension	Sleep disturbance (difficulty falling or staying asleep, or restless, unsatisfying sleep)	
	General Complaints: Limited function/ disability (psychological)	X	X	X	X	X	X	X	X	
	Sleep disturbance								X	
	Cognitive impairment: Problems with concentration					X				
	Psychiatric problems: Anxiety disorder/anxiety state	X	X	X	X	X	X	X	X	
Frailty Index for Elders (FIFE). ⁷⁸	Psychological domain: Do you get tired easily?				X					Yes: A score of $\geq 1/10$ = pre-frail.
Frail Non-Disabled Instrument (FiND) ⁷⁹	Exhaustion: How often in the last week did you feel that everything you did was an effort or that you could not get going?				X					Yes: A score of $\geq 1/3$ in the following domains; weight loss/exhaustion/sedentary behaviour = frail
Frailty Screening Tool ⁸⁰	Subjective cognitive changes during the past 3 years.					X				No clear cut point to distinguish between frail and robust.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Generalized Anxiety Disorder ²⁹							Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms Generalised Anxiety Disorder alone
		Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities	The individual finds it difficult to control the worry	Restlessness or feeling keyed up or on edge	Being easily fatigued	Difficulty concentrating or mind going blank	Irritability	Muscle tension	
FRAIL Scale ⁸¹	Fatigue				X				No: A score of $\geq 2/5$ = pre-frail.
Frailty Trait Scale (FTS) ⁸²	None								None
FRESH-Screening Instrument ⁸³	Do you get tired when taking a short (15–20 min) walk outside?				X				Yes: A score of $\geq 2/5$ = frail.
	Have you suffered any general fatigue or tiredness over the last 3 months?				X				
Groningen Frailty indicator (GFI) ^{43,84-92}	Psychosocial: Has the patient recently felt nervous or anxious?	X	X	X					No: Score of $\geq 4/15$ = frail.
Guilley Frailty Instrument ⁹³	Energy domain: Frequent tiredness				X				No: Scoring in ≥ 2 domains = frail.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Generalized Anxiety Disorder ²⁹								Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms Generalised Anxiety Disorder alone
		Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities	The individual finds it difficult to control the worry	Restlessness or feeling keyed up or on edge	Being easily fatigued	Difficulty concentrating or mind going blank	Irritability	Muscle tension	Sleep disturbance (difficulty falling or staying asleep, or restless, unsatisfying sleep)	
Head and Neck Cancer-Specific Frailty Index ⁹⁴	None									None
Inactivity and Weight Loss ^{95,96}	None									None
INTER-FRAIL Study Questionnaire ⁹⁷	Self-report of exhaustion				X					No: scores of $\leq 3/10$ = not frail (robust)
InterRAI home care frailty scale ⁹⁸	None									None
KLoSHA Frailty Index ⁹⁹	None									None
Marigliano–Cacciafesta Polypathological Scale (MPS) ¹⁰⁰	Cognitive state and mood: Compromised cognition and/or moderate/severe depression, frequent anxiety.	X	X	X	X	X	X	X	X	Yes: Medium/ Medium-severe polypathology scores = frailty

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Generalized Anxiety Disorder ²⁹								Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms Generalised Anxiety Disorder alone
		Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities	The individual finds it difficult to control the worry	Restlessness or feeling keyed up or on edge	Being easily fatigued	Difficulty concentrating or mind going blank	Irritability	Muscle tension	Sleep disturbance (difficulty falling or staying asleep, or restless, unsatisfying sleep)	
Maastricht Frailty Screening Tool for Hospitalized Patients (MFST-HP) ¹⁰¹	None									None
Palumbo Frailty Index ¹⁰²	None									None
Paulson-Lichtenberg Frailty Index ¹⁰³	Fatigue or exhaustion: Have you had any of the following persistent or troublesome problems: severe fatigue or exhaustion?				X					A score of 1-2 = pre-frail
Phenotype of Frailty ^{3,9,43,104,105}	Poor endurance and energy: Self report of exhaustion				X					Yes: A score of 1-2 = pre-frail.
Predictive Physical Frailty Score ¹⁰⁶	None									None
Prognostic Risk Score ¹⁰⁷	Process deficit in ADL.					X				No

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Generalized Anxiety Disorder ²⁹								Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms Generalised Anxiety Disorder alone
		Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities	The individual finds it difficult to control the worry	Restlessness or feeling keyed up or on edge	Being easily fatigued	Difficulty concentrating or mind going blank	Irritability	Muscle tension	Sleep disturbance (difficulty falling or staying asleep, or restless, unsatisfying sleep)	
Self-Reported Screening Tool for Frailty ¹⁰⁸	Fatigue				X					A score of 1-2 = pre-frail.
Self-Reported Questionnaire for Frailty ¹⁰⁹	In the last 2 weeks have you felt tired without a reason?				X					Scores of 1-2/5 = Pre-frail
Self-Report Tool of Frailty ¹¹⁰	Self-rated dissatisfaction with endurance/fatigue				X					Yes: scores of 1-2/4 = pre-frailty.
SHARE Frailty Instrument (SHARE FI) ¹¹¹⁻¹¹⁵	Exhaustion				X					No
SOF Frailty Criteria ¹¹⁶⁻¹¹⁸	Self-perceived reduced energy level				X					Yes: Scores of 1/3 = Pre-frail.
Strawbridge Frailty Measure ^{119,120}	Cognitive functioning: difficulty paying attention.					X				No

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Generalized Anxiety Disorder ²⁹							Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms Generalised Anxiety Disorder alone
		Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities	The individual finds it difficult to control the worry	Restlessness or feeling keyed up or on edge	Being easily fatigued	Difficulty concentrating or mind going blank	Irritability	Muscle tension	
Tilburg Frailty Indicator (TFI) ^{29,85-87,121-130}	Physical tiredness				X				No: ≥5/15 items = frail.
	Problems with memory					X			
	Feeling nervous or anxious	X	X	X					
WHIOS Multicomponent Measure (WHI-OS) ¹³¹	Poor endurance /exhaustion				X				No: A score of ≥3/5 = frailty
9-Item Frailty Measure ¹³²	None								None

Key: X = Definite construct overlap present

Abbreviations: GES = Geriatric Depression scale, PHQ-9 = Patient Health Questionnaire, HADS = Hospital Anxiety and Depression Scale, CESD = Centre for Epidemiologic Studies Depression Scale, CESD-R = Centre for Epidemiologic Studies Depression Scale Revised, BMI = Body Mass Index

Supplementary table 8: Definite construct overlap between existing multi-component frailty assessment tools and DSM-5 diagnostic criteria for Social Anxiety Disorder²⁹

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Social Anxiety Disorder ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Social Anxiety Disorder alone
		Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. Examples include social interactions (e.g. having a conversation, meeting unfamiliar people), being observed (e.g. eating or drinking), and performing in front of others (e.g. giving a speech).	The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e. will be humiliating or embarrassing; will lead to rejection or offend others).	The social situations almost always provoke fear or anxiety.	The social situations are avoided or endured with intense fear or anxiety.	The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context.	
Brief Clinical Instrument to Classify Frailty ⁴²⁻⁴⁴	None						None
Brief Frailty Index ⁴⁵	None						None
British Frailty Index ⁴⁶	Feeling anxious/ depressed/ sad	X	X	X	X	X	No clear cut point to distinguish between frail and robust.
Care Partners-Frailty Index- Comprehensive Geriatric Assessment (CP-FI-CGA) ⁴⁷	Anxiety	X	X	X	X	X	No clear cut point to distinguish between frail and robust.
Clinical Frailty Scale ⁴⁸⁻⁵¹	None						None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Social Anxiety Disorder ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Social Anxiety Disorder alone
		Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. Examples include social interactions (e.g. having a conversation, meeting unfamiliar people), being observed (e.g. eating or drinking), and performing in front of others (e.g. giving a speech).	The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e. will be humiliating or embarrassing; will lead to rejection or offend others).	The social situations almost always provoke fear or anxiety.	The social situations are avoided or endured with intense fear or anxiety.	The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context.	
Clinical Global Impression of Change in Physical Frailty (CGIC-PF) ⁵²	Anxiety	X	X	X	X	X	Scoring based on clinical judgement.
Comprehensive Assessment of Frailty (CAF) ⁵³⁻⁵⁵	None						None
Comprehensive Frailty Assessment Instrument ^{56,57}	None						
Continuous Composite Measure of Frailty ⁵⁸	None						None
Deficit-accumulation frailty index (DAFI) ⁵⁹	HADS anxiety score ≥ 11	X	X	X	X	X	No: scores of $\leq 15/78$ = not frail (robust).
	HADS total score ≥ 11	X	X	X	X	X	

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Social Anxiety Disorder ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Social Anxiety Disorder alone
		Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. Examples include social interactions (e.g. having a conversation, meeting unfamiliar people), being observed (e.g. eating or drinking), and performing in front of others (e.g. giving a speech).	The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e. will be humiliating or embarrassing; will lead to rejection or offend others).	The social situations almost always provoke fear or anxiety.	The social situations are avoided or endured with intense fear or anxiety.	The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context.	
	Social activity over the past 4 weeks: Interference in activities	X			X		
	Change in social activity over past 6 months: Less active	X			X		
EASY-Care Two-step Older persons Screening (Easycare TOS) ⁶⁰⁻⁶²	Mental wellbeing: Anxiety	X	X	X	X	X	No clear cut point to distinguish between frail and robust. Scoring based on clinical judgement.
Edmonton Frail Scale (EFS) ⁶³⁻⁶⁶	None						None
Electronic frailty index (eFI) ⁶⁷	None						None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Social Anxiety Disorder ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Social Anxiety Disorder alone
		Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. Examples include social interactions (e.g. having a conversation, meeting unfamiliar people), being observed (e.g. eating or drinking), and performing in front of others (e.g. giving a speech).	The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e. will be humiliating or embarrassing; will lead to rejection or offend others).	The social situations almost always provoke fear or anxiety.	The social situations are avoided or endured with intense fear or anxiety.	The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context.	
Evaluative Frailty Index for Physical Activity (EFIP) ⁶⁸	Psychological functioning: Do you feel nervous or anxious?	X	X	X	X	X	No clear cut point to distinguish between frail and robust.
Frailty Groupe Iso-Ressource Evaluation (FRAGIRE) tool ⁶⁹	None						None
Frailty Index-Comprehensive Geriatric Assessment (FI-CGA) ^{28,44,70-72}	Comorbidity index: Diagnosis of psychiatric illness	X	X	X	X	X	No
Frailty predicts death One year after Cardiac Surgery Test (FORECAST) ^{54,55,73}	None						None
Frailty Index ⁷⁴	None						None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Social Anxiety Disorder ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Social Anxiety Disorder alone
		Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. Examples include social interactions (e.g. having a conversation, meeting unfamiliar people), being observed (e.g. eating or drinking), and performing in front of others (e.g. giving a speech).	The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e. will be humiliating or embarrassing; will lead to rejection or offend others).	The social situations almost always provoke fear or anxiety.	The social situations are avoided or endured with intense fear or anxiety.	The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context.	
Frailty Index Based on Common Laboratory Tests (FI-LAB) ⁷⁵	None						None
Frailty Index based on Primary Care Data ^{76,77}	General Complaints: Limited function/ disability (psychological)	X	X	X	X	X	No clear cut point to distinguish between frail and robust.
	Psychiatric problems: Anxiety disorder/anxiety state	X	X	X	X	X	
Frailty Index for Elders (FIFE). ⁷⁸	Social domain: Did your physical health or emotional problems interfere with your social activities?	X			X		Yes: A score of $\geq 1/10$ = pre-frail.
Frail Non-Disabled Instrument (FiND) ⁷⁹	None						None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Social Anxiety Disorder ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Social Anxiety Disorder alone
		Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. Examples include social interactions (e.g. having a conversation, meeting unfamiliar people), being observed (e.g. eating or drinking), and performing in front of others (e.g. giving a speech).	The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e. will be humiliating or embarrassing; will lead to rejection or offend others).	The social situations almost always provoke fear or anxiety.	The social situations are avoided or endured with intense fear or anxiety.	The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context.	
Frailty Screening Tool ⁸⁰	None						None
FRAIL Scale ⁸¹	None						None
Frailty Trait Scale (FTS) ⁸²	None						None
FRESH-Screening Instrument ⁸³	None						None
Groningen Frailty indicator (GFI) ^{43,84-92}	Psychosocial: Has the patient recently felt nervous or anxious?	X	X	X	X	X	No: Score of $\geq 4/15$ = frail.
Guilley Frailty Instrument ⁹³	None						None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Social Anxiety Disorder ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Social Anxiety Disorder alone
		Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. Examples include social interactions (e.g. having a conversation, meeting unfamiliar people), being observed (e.g. eating or drinking), and performing in front of others (e.g. giving a speech).	The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e. will be humiliating or embarrassing; will lead to rejection or offend others).	The social situations almost always provoke fear or anxiety.	The social situations are avoided or endured with intense fear or anxiety.	The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context.	
Head and Neck Cancer-Specific Frailty Index ⁹⁴	None						None
Inactivity and Weight Loss ^{95,96}	None						None
INTER-FRAIL Study Questionnaire ⁹⁷	None						None
InterRAI home care frailty scale ⁹⁸	None						None
KLoSHA Frailty Index ⁹⁹	None						None
Marigliano–Cacciafesta	Cognitive state and mood: Compromised cognition and/or moderate/severe	X	X	X	X	X	Yes: Medium/ Medium-severe polypathology scores = frailty

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Social Anxiety Disorder ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Social Anxiety Disorder alone
		Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. Examples include social interactions (e.g. having a conversation, meeting unfamiliar people), being observed (e.g. eating or drinking), and performing in front of others (e.g. giving a speech).	The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e. will be humiliating or embarrassing; will lead to rejection or offend others).	The social situations almost always provoke fear or anxiety.	The social situations are avoided or endured with intense fear or anxiety.	The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context.	
Polypathological Scale (MPS) ¹⁰⁰	depression, frequent anxiety.						
Maastricht Frailty Screening Tool for Hospitalized Patients (MFST-HP) ¹⁰¹	None						None
Palumbo Frailty Index ¹⁰²	None						None
Paulson-Lichtenberg Frailty Index ¹⁰³	None						None
Phenotype of Frailty ^{3,9,43,104,105}	None						None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Social Anxiety Disorder ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Social Anxiety Disorder alone
		Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. Examples include social interactions (e.g. having a conversation, meeting unfamiliar people), being observed (e.g. eating or drinking), and performing in front of others (e.g. giving a speech).	The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e. will be humiliating or embarrassing; will lead to rejection or offend others).	The social situations almost always provoke fear or anxiety.	The social situations are avoided or endured with intense fear or anxiety.	The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context.	
Predictive Physical Frailty Score ¹⁰⁶	None						None
Prognostic Risk Score ¹⁰⁷	None						None
Self-Reported Screening Tool for Frailty ¹⁰⁸	None						None
Self-Reported Questionnaire for Frailty ¹⁰⁹	None						None
Self-Report Tool of Frailty ¹¹⁰	None						None
SHARE Frailty Instrument (SHARE FI) ¹¹¹⁻¹¹⁵	None						None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Social Anxiety Disorder ²⁹					Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Social Anxiety Disorder alone
		Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. Examples include social interactions (e.g. having a conversation, meeting unfamiliar people), being observed (e.g. eating or drinking), and performing in front of others (e.g. giving a speech).	The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e. will be humiliating or embarrassing; will lead to rejection or offend others).	The social situations almost always provoke fear or anxiety.	The social situations are avoided or endured with intense fear or anxiety.	The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context.	
SOF Frailty Criteria ¹¹⁶⁻¹¹⁸	None						None
Strawbridge Frailty Measure ^{119,120}	None						None
Tilburg Frailty Indicator (TFI) ^{29,85-87,121-130}	Feeling nervous or anxious	X	X	X	X	X	No: ≥5/15 items = frail.
WHIOS Multicomponent Measure (WHI-OS) ¹³¹	None						None
9-Item Frailty Measure ¹³²	None						None

Key: X = Definite construct overlap present

Supplementary table 9: Definite construct overlap between existing multi-component frailty assessment tools and DSM-5 diagnostic criteria for Specific Phobia²⁹

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Specific phobia ²⁹				Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Specific Phobia alone
		Marked fear or anxiety about a specific object or situation (e.g. flying, heights, animals, receiving an injection, seeing blood)	The phobic object or situation almost always provokes an immediate fear or anxiety	The phobic object or situation is actively avoided or endured with intense fear or anxiety	The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context	
Brief Clinical Instrument to Classify Frailty ⁴²⁻⁴⁴	None					None
Brief Frailty Index ⁴⁵	None					None
British Frailty Index ⁴⁶	Feeling anxious/ depressed/ sad	X	X	X	X	No clear cut point to distinguish between frail and robust.
Care Partners-Frailty Index- Comprehensive Geriatric Assessment (CP-FI-CGA) ⁴⁷	Anxiety	X	X	X	X	No clear cut point to distinguish between frail and robust.
Clinical Frailty Scale ⁴⁸⁻⁵¹	None					None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Specific phobia ²⁹				Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Specific Phobia alone
		Marked fear or anxiety about a specific object or situation (e.g. flying, heights, animals, receiving an injection, seeing blood)	The phobic object or situation almost always provokes an immediate fear or anxiety	The phobic object or situation is actively avoided or endured with intense fear or anxiety	The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context	
Clinical Global Impression of Change in Physical Frailty (CGIC-PF) ⁵²	Anxiety	X	X	X	X	Scoring based on clinical judgement.
Comprehensive Assessment of Frailty (CAF) ⁵³⁻⁵⁵	None					None
Comprehensive Frailty Assessment Instrument ^{56,57}	None					None
Continuous Composite Measure of Frailty ⁵⁸	None					None
Deficit-accumulation frailty index (DAFI) ⁵⁹	None					None
EASY-Care Two-step Older persons	Mental wellbeing: Anxiety	X	X	X	X	No clear cut point to distinguish between frail and robust.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Specific phobia ²⁹				Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Specific Phobia alone
		Marked fear or anxiety about a specific object or situation (e.g. flying, heights, animals, receiving an injection, seeing blood)	The phobic object or situation almost always provokes an immediate fear or anxiety	The phobic object or situation is actively avoided or endured with intense fear or anxiety	The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context	
Screening (Easycare TOS) ⁶⁰⁻⁶²						Scoring based on clinical judgement.
Edmonton Frail Scale (EFS) ⁶³⁻⁶⁶	None					None
Electronic frailty index (eFI) ⁶⁷	None					None
Evaluative Frailty Index for Physical Activity (EFIP) ⁶⁸	Psychological functioning: Do you feel nervous or anxious?	X	X	X	X	No clear cut point to distinguish between frail and robust.
	Psychological functioning: Are you afraid of falling over?	X				
Frailty Groupe Iso-Ressource Evaluation (FRAGIRE) tool ⁶⁹	None					None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Specific phobia ²⁹				Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Specific Phobia alone
		Marked fear or anxiety about a specific object or situation (e.g. flying, heights, animals, receiving an injection, seeing blood)	The phobic object or situation almost always provokes an immediate fear or anxiety	The phobic object or situation is actively avoided or endured with intense fear or anxiety	The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context	
Frailty Index-Comprehensive Geriatric Assessment (FI-CGA) ^{28,44,70-72}	Comorbidity index: Diagnosis of psychiatric illness	X	X	X	X	No
Frailty predicts death One year after Cardiac Surgery Test (FORECAST) ^{54,55,73}	None					None
Frailty Index ⁷⁴	None					None
Frailty Index Based on Common Laboratory Tests (FI-LAB) ⁷⁵	None					None
Frailty Index based on Primary Care Data ^{76,77}	General Complaints: Limited function/ disability (psychological)	X	X	X	X	No clear cut point to distinguish between frail and robust.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Specific phobia ²⁹				Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Specific Phobia alone
		Marked fear or anxiety about a specific object or situation (e.g. flying, heights, animals, receiving an injection, seeing blood)	The phobic object or situation almost always provokes an immediate fear or anxiety	The phobic object or situation is actively avoided or endured with intense fear or anxiety	The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context	
	Psychiatric problems: Anxiety disorder/anxiety state	X	X	X	X	
Frailty Index for Elders (FIFE). ⁷⁸	None					None
Frail Non-Disabled Instrument (FiND) ⁷⁹	None					None
Frailty Screening Tool ⁸⁰	None					None
FRAIL Scale ⁸¹	None					None
Frailty Trait Scale (FTS) ⁸²	None					None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Specific phobia ²⁹				Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Specific Phobia alone
		Marked fear or anxiety about a specific object or situation (e.g. flying, heights, animals, receiving an injection, seeing blood)	The phobic object or situation almost always provokes an immediate fear or anxiety	The phobic object or situation is actively avoided or endured with intense fear or anxiety	The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context	
FRESH-Screening Instrument ⁸³	Are you afraid of falling?	X				No: A score of $\geq 2/5$ = frail.
Groningen Frailty indicator (GFI) ^{43,84-92}	Psychosocial: Has the patient recently felt nervous or anxious?	X	X	X	X	No: Score of $\geq 4/15$ = frail.
Guilley Frailty Instrument ⁹³	None					None
Head and Neck Cancer-Specific Frailty Index ⁹⁴	None					None
Inactivity and Weight Loss ^{95,96}	None					None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Specific phobia ²⁹				Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Specific Phobia alone
		Marked fear or anxiety about a specific object or situation (e.g. flying, heights, animals, receiving an injection, seeing blood)	The phobic object or situation almost always provokes an immediate fear or anxiety	The phobic object or situation is actively avoided or endured with intense fear or anxiety	The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context	
INTER-FRAIL Study Questionnaire ⁹⁷	None					None
InterRAI home care frailty scale ⁹⁸	None					None
KLoSHA Frailty Index ⁹⁹	None					None
Marigliano–Cacciafesta Polypathological Scale (MPS) ¹⁰⁰	Cognitive state and mood: Compromised cognition and/or moderate/severe depression, frequent anxiety.	X	X	X	X	Yes: Medium/ Medium-severe polypathology scores = frailty
Maastricht Frailty Screening Tool for Hospitalized Patients (MFST-HP) ¹⁰¹	None					None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Specific phobia ²⁹				Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Specific Phobia alone
		Marked fear or anxiety about a specific object or situation (e.g. flying, heights, animals, receiving an injection, seeing blood)	The phobic object or situation almost always provokes an immediate fear or anxiety	The phobic object or situation is actively avoided or endured with intense fear or anxiety	The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context	
Palumbo Frailty Index ¹⁰²	None					None
Paulson-Lichtenberg Frailty Index ¹⁰³	None					None
Phenotype of Frailty ^{3,9,43,104,105}	None					None
Predictive Physical Frailty Score ¹⁰⁶	None					None
Prognostic Risk Score ¹⁰⁷	None					None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Specific phobia ²⁹				Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Specific Phobia alone
		Marked fear or anxiety about a specific object or situation (e.g. flying, heights, animals, receiving an injection, seeing blood)	The phobic object or situation almost always provokes an immediate fear or anxiety	The phobic object or situation is actively avoided or endured with intense fear or anxiety	The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context	
Self-Reported Screening Tool for Frailty ¹⁰⁸	None					None
Self-Reported Questionnaire for Frailty ¹⁰⁹	None					None
Self-Report Tool of Frailty ¹¹⁰	None					None
SHARE Frailty Instrument (SHARE FI) ¹¹¹⁻¹¹⁵	None					None
SOF Frailty Criteria ¹¹⁶⁻¹¹⁸	None					None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Specific phobia ²⁹				Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Specific Phobia alone
		Marked fear or anxiety about a specific object or situation (e.g. flying, heights, animals, receiving an injection, seeing blood)	The phobic object or situation almost always provokes an immediate fear or anxiety	The phobic object or situation is actively avoided or endured with intense fear or anxiety	The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context	
Strawbridge Frailty Measure ^{119,120}	None					None
Tilburg Frailty Indicator (TFI) ^{29,85-87,121-130}	Feeling nervous or anxious	X	X	X	X	No: $\geq 5/15$ items = frail.
WHIOS Multicomponent Measure (WHI-OS) ¹³¹	None					None
9-Item Frailty Measure ¹³²	None					None

Key: X = Definite construct overlap present

Supplementary table 10: Definite construct overlap between existing multi-component frailty assessment tools and DSM-5 diagnostic criteria for Panic Disorder²⁹

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Panic Disorder ²⁹															Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Panic Disorder alone
		Recurrent unexpected panic attacks	Palpitations, pounding heart or accelerated heart rate	Sweating	Trembling or shaking	Sensations of shortness of breath or smothering	Feelings of choking	Chest pain or discomfort	Nausea or abdominal distress	Feeling dizzy, unsteady, light-headed or faint	Paraesthesia (numbness or tingling sensations)	Derealisation's or depersonalisation	Fear of losing control or 'going crazy	Fear of dying	Persistent concern or worry about additional panic attacks or their consequences	A significant maladaptive change in behaviour related to the attacks	
Brief Clinical Instrument to Classify Frailty ⁴²⁻⁴⁴	None																None
Brief Frailty Index ⁴⁵	None																None
British Frailty Index ⁴⁶	Feeling anxious/ depressed/ sad	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	No clear cut point to distinguish between frail and robust.
	Chest pain							X									
	Short of breath on level walking.					X											
Care Partners-Frailty Index-Comprehensive Geriatric Assessment (CP-FI-CGA) ⁴⁷	Anxiety	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	No clear cut point to distinguish between frail and robust.
	Dizzy or Lightheaded									X							

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Panic Disorder ²⁹														Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Panic Disorder alone	
		Recurrent unexpected panic attacks	Palpitations, pounding heart or accelerated heart rate	Sweating	Trembling or shaking	Sensations of shortness of breath or smothering	Feelings of choking	Chest pain or discomfort	Nausea or abdominal distress	Feeling dizzy, unsteady, light-headed or faint	Paraesthesia (numbness or tingling sensations)	Derealisation's or depersonalisation	Fear of losing control or 'going crazy	Fear of dying	Persistent concern or worry about additional panic attacks or their consequences		A significant maladaptive change in behaviour related to the attacks
Clinical Frailty Scale ⁴⁸⁻⁵¹	None																None
Clinical Global Impression of Change in Physical Frailty (CGIC-PF) ⁵²	Anxiety	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Scoring based on clinical judgement.
Comprehensive Assessment of Frailty (CAF) ⁵³⁻⁵⁵	None																None
Comprehensive Frailty Assessment Instrument ^{56,57}	None																None
Continuous Composite Measure of Frailty ⁵⁸	None																None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Panic Disorder ²⁹														Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Panic Disorder alone	
		Recurrent unexpected panic attacks	Palpitations, pounding heart or accelerated heart rate	Sweating	Trembling or shaking	Sensations of shortness of breath or smothering	Feelings of choking	Chest pain or discomfort	Nausea or abdominal distress	Feeling dizzy, unsteady, light-headed or faint	Paraesthesia (numbness or tingling sensations)	Derealisation's or depersonalisation	Fear of losing control or 'going crazy	Fear of dying	Persistent concern or worry about additional panic attacks or their consequences		A significant maladaptive change in behaviour related to the attacks
Deficit-accumulation frailty index (DAFI) ⁵⁹	None																None
EASY-Care Two-step Older persons Screening (Easycare TOS) ⁶⁰⁻⁶²	Mental wellbeing: Anxiety	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	No clear cut point to distinguish between frail and robust. Scoring based on clinical judgement.
Edmonton Frail Scale (EFS) ⁶³⁻⁶⁶	None																None
Electronic frailty index (eFI) ⁶⁷	Atrial fibrillation		X														No: Scores ≤ 4/36 = not fail (robust)
	Dizziness								X								
	Dyspnoea						X										
Evaluative Frailty Index for Physical Activity (EFIP) ⁶⁸	Physical functioning: Do you feel dizzy when you stand up?									X							No clear cut point to distinguish between frail and robust.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Panic Disorder ²⁹														Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Panic Disorder alone
		Recurrent unexpected panic attacks	Palpitations, pounding heart or accelerated heart rate	Sweating	Trembling or shaking	Sensations of shortness of breath or smothering	Feelings of choking	Chest pain or discomfort	Nausea or abdominal distress	Feeling dizzy, unsteady, light-headed or faint	Paraesthesia (numbness or tingling sensations)	Derealisation's or depersonalisation	Fear of losing control or 'going crazy	Fear of dying	Persistent concern or worry about additional panic attacks or their consequences	
	Psychological functioning: Do you feel nervous or anxious?	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Frailty Groupe Iso-Ressource Evaluation (FRAGIRE) tool ⁶⁹	None															None
Frailty Index-Comprehensive Geriatric Assessment (FI-CGA) ^{28,44,70-72}	Comorbidity index: Diagnosis of psychiatric illness	X	X	X	X	X	X	X	X	X	X	X	X	X	X	No
Frailty predicts death One year after Cardiac Surgery Test (FORECAST) ^{54,55,73}	None															None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Panic Disorder ²⁹														Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Panic Disorder alone	
		Recurrent unexpected panic attacks	Palpitations, pounding heart or accelerated heart rate	Sweating	Trembling or shaking	Sensations of shortness of breath or smothering	Feelings of choking	Chest pain or discomfort	Nausea or abdominal distress	Feeling dizzy, unsteady, light-headed or faint	Paraesthesia (numbness or tingling sensations)	Derealisation's or depersonalisation	Fear of losing control or 'going crazy	Fear of dying	Persistent concern or worry about additional panic attacks or their consequences		A significant maladaptive change in behaviour related to the attacks
Frailty Index ⁷⁴	None																None
Frailty Index Based on Common Laboratory Tests (FI-LAB) ⁷⁵	None																None
Frailty Index based on Primary Care Data ^{76,77}	General Complaints: Limited function/ disability (psychological)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	No clear cut point to distinguish between frail and robust.
	General Complaints: Pain general/ multiple sites							X									
	Dizziness									X							

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Panic Disorder ²⁹														Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Panic Disorder alone
		Recurrent unexpected panic attacks	Palpitations, pounding heart or accelerated heart rate	Sweating	Trembling or shaking	Sensations of shortness of breath or smothering	Feelings of choking	Chest pain or discomfort	Nausea or abdominal distress	Feeling dizzy, unsteady, light-headed or faint	Paraesthesia (numbness or tingling sensations)	Derealisation's or depersonalisation	Fear of losing control or 'going crazy	Fear of dying	Persistent concern or worry about additional panic attacks or their consequences	
	Psychiatric problems: Anxiety disorder/anxiety state	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Frailty Index for Elders (FIFE). ⁷⁸	None															None
Frail Non-Disabled Instrument (FiND) ⁷⁹	None															None
Frailty Screening Tool ⁸⁰	None															None
FRAIL Scale ⁸¹	None															None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Panic Disorder ²⁹											Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Panic Disorder alone				
		Recurrent unexpected panic attacks	Palpitations, pounding heart or accelerated heart rate	Sweating	Trembling or shaking	Sensations of shortness of breath or smothering	Feelings of choking	Chest pain or discomfort	Nausea or abdominal distress	Feeling dizzy, unsteady, light-headed or faint	Paraesthesia (numbness or tingling sensations)	Derealisation's or depersonalisation		Fear of losing control or 'going crazy	Fear of dying	Persistent concern or worry about additional panic attacks or their consequences	A significant maladaptive change in behaviour related to the attacks
Frailty Trait Scale (FTS) ⁸²	None																None
FRESH-Screening Instrument ⁸³	None																None
Groningen Frailty indicator (GFI) ^{43,84-92}	Psychosocial: Has the patient recently felt nervous or anxious?	X												X			No: Score of $\geq 4/15$ = frail.
Guilley Frailty Instrument ⁹³	Physical pains domain: Suffering a lot from pains in heart.						X										No: Scoring in ≥ 2 domains = frail.
	Physical pains domain: Suffering a lot from pains in respiratory organs.						X										

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Panic Disorder ²⁹												Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Panic Disorder alone			
		Recurrent unexpected panic attacks	Palpitations, pounding heart or accelerated heart rate	Sweating	Trembling or shaking	Sensations of shortness of breath or smothering	Feelings of choking	Chest pain or discomfort	Nausea or abdominal distress	Feeling dizzy, unsteady, light-headed or faint	Paraesthesia (numbness or tingling sensations)	Derealisation's or depersonalisation	Fear of losing control or 'going crazy		Fear of dying	Persistent concern or worry about additional panic attacks or their consequences	A significant maladaptive change in behaviour related to the attacks
	Physical pains domain: Suffering a lot from pains in stomach, abdomen.							X									
Head and Neck Cancer-Specific Frailty Index ⁹⁴	None																None
Inactivity and Weight Loss ^{95,96}	None																None
INTER-FRAIL Study Questionnaire ⁹⁷	None																None
InterRAI home care frailty scale ⁹⁸	Dizzy								X								No clear cut point to distinguish between frail and robust.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Panic Disorder ²⁹														Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Panic Disorder alone	
		Recurrent unexpected panic attacks	Palpitations, pounding heart or accelerated heart rate	Sweating	Trembling or shaking	Sensations of shortness of breath or smothering	Feelings of choking	Chest pain or discomfort	Nausea or abdominal distress	Feeling dizzy, unsteady, light-headed or faint	Paraesthesia (numbness or tingling sensations)	Derealisation's or depersonalisation	Fear of losing control or 'going crazy	Fear of dying	Persistent concern or worry about additional panic attacks or their consequences		A significant maladaptive change in behaviour related to the attacks
KLoSHA Frailty Index ⁹⁹	None																None
Marigliano–Cacciafesta Polypathological Scale (MPS) ¹⁰⁰	Cognitive state and mood: Compromised cognition and/or moderate/severe depression, frequent anxiety.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Yes: Medium/ Medium-severe polypathology scores = frailty
Maastricht Frailty Screening Tool for Hospitalized Patients (MFST-HP) ¹⁰¹	Patient has trouble standing, walking or maintaining balance									X							No clear cut point to distinguish between frail and robust.
Palumbo Frailty Index ¹⁰²	None																None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Panic Disorder ²⁹											Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Panic Disorder alone				
		Recurrent unexpected panic attacks	Palpitations, pounding heart or accelerated heart rate	Sweating	Trembling or shaking	Sensations of shortness of breath or smothering	Feelings of choking	Chest pain or discomfort	Nausea or abdominal distress	Feeling dizzy, unsteady, light-headed or faint	Paraesthesia (numbness or tingling sensations)	Derealisation's or depersonalisation		Fear of losing control or 'going crazy	Fear of dying	Persistent concern or worry about additional panic attacks or their consequences	A significant maladaptive change in behaviour related to the attacks
Paulson-Lichtenberg Frailty Index ¹⁰³	None																None
Phenotype of Frailty ^{3,9,43,104,105}	None																None
Predictive Physical Frailty Score ¹⁰⁶	None																None
Prognostic Risk Score ¹⁰⁷	None																None
Self-Reported Screening Tool for Frailty ¹⁰⁸	None																None

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Panic Disorder ²⁹											Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Panic Disorder alone				
		Recurrent unexpected panic attacks	Palpitations, pounding heart or accelerated heart rate	Sweating	Trembling or shaking	Sensations of shortness of breath or smothering	Feelings of choking	Chest pain or discomfort	Nausea or abdominal distress	Feeling dizzy, unsteady, light-headed or faint	Paraesthesia (numbness or tingling sensations)	Derealisation's or depersonalisation		Fear of losing control or 'going crazy	Fear of dying	Persistent concern or worry about additional panic attacks or their consequences	A significant maladaptive change in behaviour related to the attacks
Self-Reported Questionnaire for Frailty ¹⁰⁹	None																None
Self-Report Tool of Frailty ¹¹⁰	None																None
SHARE Frailty Instrument (SHARE FI) ¹¹¹⁻¹¹⁵	None																None
SOF Frailty Criteria ¹¹⁶⁻¹¹⁸	None																None
Strawbridge Frailty Measure ^{119,120}	Physical functioning: dizzy or faint when stand up quickly								X								No
Tilburg Frailty Indicator (TFI) ^{29,85-87,121-130}	Feeling nervous or anxious	X												X			No: ≥5/15 items = frail.

Frailty assessment tool	Items of frailty assessment tool with definite construct overlap with DSM-5 diagnostic criteria	DSM-5 diagnostic criteria for Panic Disorder ²⁹											Potential for the frailty assessment tool to rate an individual as frail or pre-frail based on symptoms of Panic Disorder alone				
		Recurrent unexpected panic attacks	Palpitations, pounding heart or accelerated heart rate	Sweating	Trembling or shaking	Sensations of shortness of breath or smothering	Feelings of choking	Chest pain or discomfort	Nausea or abdominal distress	Feeling dizzy, unsteady, light-headed or faint	Paraesthesia (numbness or tingling sensations)	Derealisation's or depersonalisation		Fear of losing control or 'going crazy	Fear of dying	Persistent concern or worry about additional panic attacks or their consequences	A significant maladaptive change in behaviour related to the attacks
WHIOS Multicomponent Measure (WHI-OS) ¹³¹	None																None
9-Item Frailty Measure ¹³²	None																None

Key: X = Definite construct overlap present