**Supplementary Table 1. The Frailty Phenotype Assessment.**

|  |  |  |
| --- | --- | --- |
| Frailty Criteria | Measure | |
| Unintentional Weight Loss | ≥10 pounds or ≥5% body weight over the preceding 12 months. | |
| Weakness | Hand grip strength frailty criterion cut offs:  **Men**  BMI ≤24: ≤29 kg  BMI 24.1-26: ≤30 kg  BMI 26.1-28: ≤30 kg  BMI >28: ≤32 kg | **Women**  BMI ≤23: ≤17 kg  BMI 23.1-26: ≤17.3 kg  BMI 26.1-29: ≤18 kg  BMI >29: ≤21 kg |
| Self-perceived Exhaustion | Participants asked two statements from the Center for Epidemiological Studies Depression Scale:   1. I felt that everything I did was an effort. 2. I could not get going.   Participants then asked:  ‘How often did you feel this?’ and provided the following scale:  0 = rarely or none of the time  1 = some of the time  2 = moderate amount of the time  3 = most of the time  Frailty criterion: answers ≥2 | |
| Slowness | Walking speed frailty criterion cut offs:  **Men**  Height ≤173 cm: ≥7 seconds (≤0.65 m/s)  Height >173 cm: ≥6 seconds (≤0.76 m/s) | **Women**  Height ≤159 cm: ≥7 seconds (≤0.65 m/s)  Height >159cm: ≥6 seconds (≤0.76 m/s) |
| Low Physical Activity | Modified version of the Minnesota Leisure Time Questionnaire used to assess energy expenditure per week. Frailty criterion: Men <383 Kcals/week, Women <270 Kcals/week. | |
| Frailty diagnosed if 3 or more frailty criteria present. Pre-frailty, or intermediate frailty, defined as the presence of 1 or 2 frailty criteria. | | |

**Supplementary Table 2. The PRISMA-7 Questionnaire Frailty Screening Tool.**

|  |  |
| --- | --- |
| Question | Answer |
| 1. Are you more than 85 years old? | Yes/No |
| 2. Male? | Yes/No |
| 3. In general, do you have any health problems that require you to limit your activities? | Yes/No |
| 4. Do you need someone to help you on a regular basis? | Yes/No |
| 5. In general, do you have any health problems that require you to stay at home? | Yes/No |
| 6. In case of need, can you count on someone close to you? | Yes/No |
| 7. Do you regularly use a cane, a walker or a wheelchair to move about? | Yes/No |
| Total Number of ‘Yes’ Answers: |  |
| Frail: ≥3 ‘Yes’ Answers | |

**Supplementary Table 3. CKD Frailty Index.**

|  |  |  |
| --- | --- | --- |
| CKD Frailty Index Variables and Corresponding Scoring | | |
| Depression (clinical diagnosis):  Yes= 1, No=0 | Gastrointestinal problems:  Yes= 1, No=0 | Problems bathing or dressing:  Yes= 1, No=0 |
| Ischaemic heart disease:  Yes= 1, No=0 | Skin problems:  Yes= 1, No=0 | Self-rating of health:  Poor=1, Fair= 0.75, Good = 0.5, Very Good = 0.25, Excellent = 0 |
| Arrhythmia:  Yes= 1, No=0 | Peripheral vascular disease:  Yes= 1, No=0 | Change in health in the last year:  Worse = 1, Better/Same = 0 |
| Heart Failure:  Yes= 1, No=0 | History of seizures:  Yes= 1, No=0 | Health problems that require you to limit your activities:  Yes= 1, No=0 |
| Hypertension:  Yes=1, No=0 | History of malignancy:  Yes= 1, No=0 | Health problems that require you to stay at home:  Yes= 1, No=0 |
| Cerebrovascular disease:  Yes= 1, No=0 | Other medical problems:  Yes= 1, No=0 | Need someone to help you on a regular basis:  Yes= 1, No=0 |
| Diabetes mellitus:  Yes= 1, No=0 | Falls last 6 months:  Yes=1, No= 0 | Require a walking aid:  Yes= 1, No=0 |
| Chronic lung disease:  Yes=1, No=0 | Problems shopping:  Yes= 1, No=0 | Felt everything was an effort:  Moderate/most of time = 1, some of the time = 0.5, rarely = 0 |
| Chronic Liver disease:  Yes=1, No=0 | Problems with stairs:  Yes=1, No=0 | Had trouble getting going:  Moderate/most of time = 1, some of the time = 0.5, rarely = 0 |
| Thyroid disease:  Yes= 1, No=0 | Problems cooking:  Yes= 1, No=0 | Self-reported low mood (“down in the dumps”, “downhearted or blue”):  Good bit/most/all of time = 1, some/little of the time = 0.5, rarely = 0 |
| Musculoskeletal problems:  Yes= 1, No=0 | Problems swallowing:  Yes= 1, No=0 | Weight loss in last 12 months (more than 4.5Kg or >5% of body weight):  Yes= 1 No= 0 |
| CKD Frailty Index = Total Number of Deficits  33 | | |

**Supplementary Table 4. CKD FI-LAB.**

|  |  |  |
| --- | --- | --- |
| Variable | Lower Cut Off | Upper Cut Off |
| Systolic BP, mmHg | 90 | 140 |
| Diastolic BP, mmHg | 60 | 90 |
| Haemoglobin, g/L | 100 | 120\* |
| MCV, fl | 82 | 98 |
| White cell count, x 109/L | 4.0 | 11.0 |
| Platelet count, x 109/L | 140 | 440 |
| Ferritin, μg/L | 100\*\* | 800 |
| Transferrin saturation, % | 20 | 50 |
| Sodium, mmol/L | 133 | 146 |
| Potassium, mmol/L | 3.5 | 5.3 |
| Bicarbonate, mmol/L | 22 | 29 |
| CRP, mg/L | 0 | 5 |
| Corrected calcium, mmol/L | 2.20 | 2.60 |
| Phosphate, mmol/L | 0.80 | 1.50 |
| Alkaline phosphatase, U/L | 30 | 130 |
| Albumin, g/L | 35 | 50 |
| Total Protein, g/L | 60 | 80 |
| ALT, U/L | 0 | 41 |
| Bilirubin, μmol/L | 0 | 21 |
| Prothrombin Time, seconds | 9 | 12 |
| Fibrinogen, g/L | 1.8 | 4.5 |
| Folate, μg/L | 3.9 | 19.8 |
| TSH, mU/L | 0.35 | 5.00 |
| T4, pmol/L | 11.0 | 23.0 |
| B12, ng/L | 200 | 900 ng/L |
| HbA1C, mmol/mol | 20 | 41 |
| Vitamin D, nmol/L | 50 | 150 |
| CKD FI-LAB = Total Number of Deficits  Total Number of Variables  Measured | | |

BP, Blood Pressure; MCV, Mean Corpuscular Volume; CRP, C-Reactive Protein; ALT, Alanine Transaminase; TSH, Thyroid-Stimulating Hormone. \*If on Erythropoietin Stimulating Agent. Otherwise, haemoglobin upper cut off 165 g/L for women and 180 g/L for men. \*\*If haemoglobin less than 110 g/L and/or receiving Erythropoietin Stimulating Agent. Otherwise, ferritin lower cut off 20μg/L for men and 15μg/L for women.

**Supplementary Table 5. Cross-tabulation of Frailty Screening Methods by Frailty Phenotype Frailty Diagnosis.**

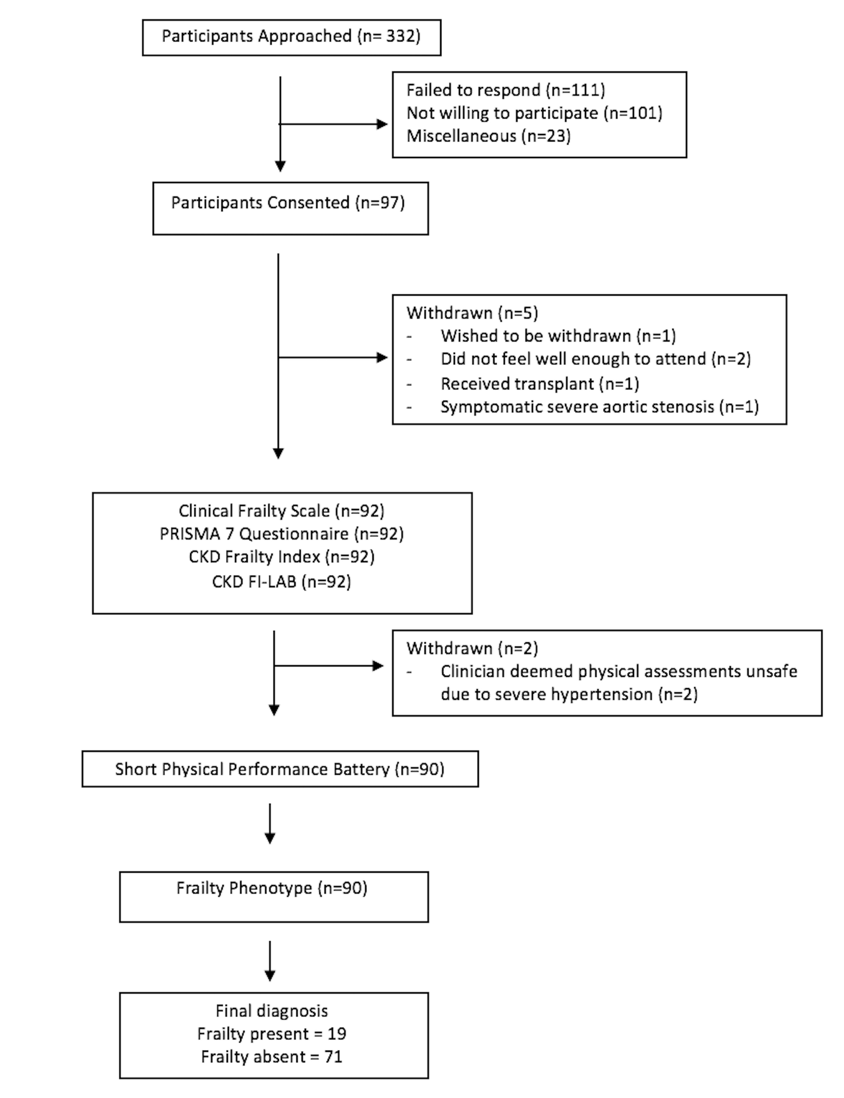
|  |  |  |  |
| --- | --- | --- | --- |
|  | Frailty Phenotype | | Total |
| **Frail** | **Non-Frail** |
| CFS ≥5  CFS ≥4  PRISMA-7 ≥3  CKD FI >0.21  CKD FI >0.32  WS: Frailty Phenotype Frail  WS: ≤0.8 m/s, or unable  HGS: Frailty Phenotype Frail  HGS: Men <30kg; Women <20kg  SPPB <10  SPPB <9 | 15  19  17  19  18  16  18  19  18  19  19 | 9  32  28  45  23  3  10  24  28  34  16 | 24  51  45  64  41  19  28  43  46  53  35 |
| CFS <5  CFS <4  PRISMA-7 <3  CKD FI ≤0.21  CKD FI ≤0.32  WS: Frailty Phenotype Non-Frail  WS: >0.8 m/s  HGS: Frailty Phenotype Non-Frail  HGS: Men ≥30kg; Women ≥20kg  SPPB ≥10  SPPB ≥9 | 4  0  2  0  1  3  1  0  1  0  0 | 62  39  43  26  48  68  61  47  43  37  55 | 66  39  45  26  49  71  62  47  44  37  55 |
| Total for Individual Frailty Screening Methods | 19 | 71 | 90 |

CFS, Clinical Frailty Scale; FI, Frailty Index; WS, Walking Speed; HGS, Hand Grip Strength; SPPB, Short Physical Performance Battery; m/s, metres/second; kg, kilograms.

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**Supplementary Figure 1. The Clinical Frailty Scale.**

The 9-point Clinical Frailty Scale was adapted from the 7-point scale used in the Canadian Study of Health and Aging and has been reprinted with permission of Geriatric Medicine Research, Dalhousie University, Halifax, Nova Scotia, Canada.



**Supplementary Figure 2. Participant Flow Diagram.**