**Supplementary Material:**

**Table S1:** Associations between consensus definitions of abdominal obesity or dynapenia (sit-to-stand time) and falls, by sex

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Obesity measure** | **Dynapenia measure** |
| **Model** | **Adjusted** | OR | [95% CI] | P | OR | [95% CI] | P |
|  | **Male**  |  |  |  |  |  |  |
| 1 | Sit-to-stand time (STS) | - | - | **-** | 1.36 | [0.98-1.87] | 0.064 |
| 2 | WC / STS | 1.45 | [1.16-1.81] | **0.001** | 1.28 | [0.92-1.77] | 0.139 |
|  | **Female**  |  |  |  |  |  |  |
| 1 | Sit-to-stand time (STS) | - | - | - | 1.84 | [1.44-2.35] | **<0.001** |
| 2 | WC / STS | 1.09 | [0.90-1.32] | 0.364 | 1.82 | [1.43-2.33] | **<0.001** |

Consensus measures of abdominal obesity and dynapenia (STS < 15 seconds) as dichotomous variables were added to (1) individual (dynapenia only) or (2) joint logistic regression models (dynapenia and abdominal obesity), adjusted for age. The respective non-obese or non-dynapenic group was used as the reference. **Abbreviations:** OR = odds ratio; CI = confidence interval; WC = Waist Circumference.

**Table S2:** Unadjusted associations (expressed as odds ratio) between characteristics, variables of obesity or dynapenia and risk of falls, by sex

|  |  |  |  |
| --- | --- | --- | --- |
|  | **All (n=4239)** | **Male (n=1960)** | **Female (n=2279)** |
| **Unadjusted** | OR | [95% CI] | P | OR | [95% CI] | P | OR | [95% CI] | P |
| Age (y) | 1.29 | [1.21-1.38] | **<0.001** | 1.37 | [1.23-1.53] | **<0.001** | 1.23 | [1.13-1.35] | **<0.001** |
| Sex (female) | 1.45 | [1.26-1.67] | **<0.001** | - |  |  | - |  |  |
| Fallhistory | 2.75 | [2.37-3.20] | **<0.001** | 3.42 | [2.70-4.34] | **<0.001** | 2.30 | [1.88-2.80] | **<0.001** |
| **Obesity** |  |  |  |  |  |  |  |  |  |
| Body Mass Index (kg/m2) | 1.09 | [1.02-1.17] | **0.012** | 1.21 | [1.07-1.36] | **0.002** | 1.04 | [0.95-1.13] | 0.387 |
| Waist circumference (cm) | 1.04 | [0.97-1.11] | 0.318 | 1.27 | [1.12-1.43] | **<0.001** | 1.06 | [0.96-1.17] | 0.227 |
| **Dynapenia** |  |  |  |  |  |  |  |  |  |
| Hand-grip strength (kg) | 0.77 | [0.71-0.83] | **<0.001** | 0.76 | [0.67-0.88] | **<0.001** | 0.76 | [0.64-0.90] | **0.001** |
| Sit-to-stand time (s) | 1.32 | [1.23-1.41] | **<0.001** | 1.25 | [1.11-1.40] | **<0.001** | 1.33 | [1.22-1.44] | **<0.001** |

Measures of obesity, dynapenia and age are presented as Z-scores. **Abbreviations:** OR = odds ratio; CI = confidence interval.