|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Appendix table 1. Frailty criteria** | | | | | | |
| Cohort (Geographic location in Japan) | Data | Weight loss | Exhaustion | Weakness | Slowness | Low activity |
| A (Central part) | 2012/2017 | Unintentional weight loss ≥2-3 kg/6 months (Kihon Checklist #11) | Constant tiredness in the past 2 weeks (Kihon Checklist #25) | Grip strength:  men <26 kg, women <18 kg | Normal walking speed:  <1.0 m/s (distance: 2.4 m） | 1) Low levels of physical exercise <1 day/week 2) Regular physical activities <1 day/week Applicable to both questions |
| B (Central part) | 2012 | Weight loss ≥ 5% in the past 2 years (physically measured) | 1) I felt that everything I did was an effort (CES-D #7) 2) I could not get going (CES-D #20) Applicable to one or both questions | Grip strength:  men <26 kg, women <18 kg | Normal walking speed:  <1.0 m/s (distance: 10 m） | The lower 20% physical activity (METs/day) by gender  (modified Minnesota Leisure Time Physical Activity Questionnaire) |
| C (Capital area) | 2012/2017 | Unintentional weight loss ≥2-3 kg/6 months (Kihon Checklist #11) | Constant tiredness in the past 2 weeks (Kihon Checklist #25) | Grip strength:  women <18 kg (only women data) | Normal walking speed:  <1.0 m/s (distance: 5 m） | 1) Take regular walks 2) Perform light gymnastics regularly 3) Exercise regularly Not applicable to all questions |
| D (Mid-eastern part) | 2012/2017 | Unintentional weight loss ≥2-3 kg/6 months (Kihon Checklist #11) | Constant tiredness in the past 2 weeks (Kihon Checklist #25) | Grip strength:  men <26 kg, women <18 kg | Normal walking speed:  <1.0 m/s (distance: 5 m） | 2012：Frequency of going outdoors <1 time/a few days 2017: 1) Low levels of physical exercise <1 day/week 2) Regular physical activities <1 day/week Applicable to both questions |
| E (Capital area) | 2012/2017 | Unintentional weight loss ≥2-3 kg/6 months (Kihon Checklist #11) | Constant tiredness in the past 2 weeks (Kihon Checklist #25) | Grip strength:  men <26 kg, women <18 kg | Normal walking speed:  <1.0 m/s (distance: 2012 10 m, 2017 5 m） | 1) Low levels of physical exercise <1 day/week 2) Regular physical activities <1 day/week Applicable to both questions |
| F (Capital area) | 2017 | Unintentional weight loss ≥2-3 kg/6 months (Kihon Checklist #11) | Constant tiredness in the past 2 weeks (Kihon Checklist #25) | Grip strength:  men <26 kg, women <18 kg | Normal walking speed:  <1.0 m/s (distance: 5 m） | 1) Low levels of physical exercise <1 day/week 2) Regular physical activities <1 day/week Applicable to both questions |
| G (Southwestern part) | 2012 | Unintentional weight loss ≥2-3 kg/6 months (Kihon Checklist #11) | Constant tiredness in the past 2 weeks (Kihon Checklist #25) | Grip strength:  men <26 kg, women <18 kg | Normal walking speed:  <1.0 m/s (distance: 6 m） | Frequency of going outdoors <1 day/week (Kihon Checklist #16) |
| H (Suburbs of capital area) | 2012/2017 | 2012: Unintentional weight loss ≥2-3 kg/6 months (Kihon Checklist #11) 2017：Weight loss ≥ 5% in the past 2 years (measured with the InBody430a) | 1) Find it difficult to do what was easy before in the past 2 weeks (Kihon Checklist #23) 2) Feel constant tiredness in the past 2 weeks (Kihon Checklist #25) Applicable to one or both questions | Grip strength: the lower 20 % by gender and BMI | Normal walking speedb: the lower 20% by gender and height (distance: 5 m） | The lower 20 % of physical activity (METs/day) by gender  (Global Physical Activity Questionnaire) |
| I (Southwestern part) | 2017 | Unintentional weight loss ≥2-3 kg/6 months (Kihon Checklist #11) | Constant tiredness in the past 2 weeks (Kihon Checklist #25) | Grip strength:  men <26 kg, women <18 kg | Normal walking speed:  <1.0 m/s (distance: 5 m） | 1) Low levels of physical exercise <1 day/week 2) Regular physical activities <1 day/week Applicable to both questions |
| J (Southern part) | 2017 | Unintentional weight loss ≥2-3 kg/6 months (Kihon Checklist #11) | Constant tiredness in the past 2 weeks (Kihon Checklist #25) | Grip strength:  men <26 kg, women <18 kg | Normal walking speed:  <1.0 m/s (distance: 10 m） | 1) Low levels of physical exercise <1 day/week 2) Regular physical activities <1 day/week Applicable to both questions |
| a. InBody430 (InBody Japan, Tokyo, Japan); b. Slowness was recalculated (<1.0 m/s) for the meta-analysis | | | | | | |