**Supplementary Table 4.** Sarcopenia definition, sarcopenia prevalence, measurement methods for muscle parameters and cut-off values used in included articles, stratified by population

| **Author, year** | **Sarc. definition** | **Prev. (%)** | **Measurement method and cut-off values** | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Muscle mass** | | **Muscle strength** | | **Physical performance** | |
| **Community-dwelling** | |  |  |  |  |  |  |  |
| Yuki, 2017 [46] | AWGS | 4.7 | DXA | M: ALM/ h2 <7.0 kg/m2 F: ALM/ h2 <5.4 kg/m2 | HGS | M: <26 kg  F: <18 kg | 10 m walk | M: <0.8 m/s  F: <0.8 m/s |
| Alexandre, 2014 [31] | EWGSOP | 23.2 | DXA | M: ALM/h2 ≤8.90 kg/m2  F: ALM/h2 ≤6.37 kg/m2 | HGS | M: <30 kg  F: <20 kg | 2.4 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
| Arango-Lopera, 2013 [30] | EWGSOP | 33.6 | CC | M: ≤31 cm  F: ≤31 cm | HGS | M: <30 kg  F: <20 kg | 4 m walk | M: <0.8 m/s  F: <0.8 m/s |
| Bianchi, 2016 [35] | EWGSOP | 10.2 | BIA | M: SMI <8.87 kg/m2 F: SMI <6.42 kg/m2 | HGS | Cut-offs BMI categorya | 4 m walk | M: <0.8 m/s  F: <0.8 m/s |
| Brown, 2015 [36] | EWGSOP | 36.5 | BIA | M: SMI <10.76 kg/m2  F: SMI <6.75 kg/m2 | NA | NA | 4 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
| Kim, 2014 [32] | EWGSOP | 8.8 | DXA | M: ALM/h2 <7.09 kg/m2  F: ALM/h2 <5.27 kg/m2 | LMS | M: <0.75 Nm/kg  F: <0.79 Nm/kg | SPPB | M: ≤8 pts F: ≤8 pts |
|  | EWGSOP | 26.1 | DXA | M: ALM/wt <29.9%  F: ALM/wt <25.1% | LMS | M: <0.75 Nm/kg  F: <0.79 Nm/kg | SPPB | M: ≤8 pts F: ≤8 pts |
| Landi, 2016 [26] | EWGSOP | 29.1 | MAMC | M: <21.1cm  F: <19.2cm | HGS | M: <30 kg  F: <20 kg | 4 m walk | M: <0.8 m/s  F: <0.8 m/s |
| Costanzo, 2020 [47] | EWGSOP | 6.2 | BIA | M: SMI <8.87 kg/m2 F: SMI <6.42 kg/m2 | HGS | Cut-offs BMI categoryb | NA | NA |
|  | EWGSOP2 | 3.2 | BIA | M: ASM/h2 <7.0 kg/m2  F: ASM/h2 <6.0 kg/m2 | HGS, CST | M: <27 kg, >15 s F: <16 kg, >15 s | NA | NA |
|  | EWGSOP2a | 15.5 | NA | NA | HGS, CST | M: <27 kg, >15 s F: <16 kg, >15 s | NA | NA |
| Cawthon, 2015 [33] | FNIH | 1.5 | DXA | M: ALM/BMI <0.789 | HGS | M: <26 kg | NA | NA |
|  | FNIH | 0.30 | DXA | M: ALM/BMI <0.789 | HGS | M: <26 kg | 6 m walk | M: ≤0.8 m/s |
| de Buyser, 2016 [43] | FNIH | 7.0 | DXA | M: ALM <19.75 kg | HGS | M: <26 kg | NA | NA |
|  | FNIH | 3.0 | DXA | M: ALM <19.75 kg | HGS/BMI | M: <1 | NA | NA |
|  | FNIH | 6.0 | DXA | M: ALM/BMI <0.789 | HGS | M: <26 kg | NA | NA |
|  | FNIH | 8.0 | DXA | M: ALM/BMI <0.789 | HGS/BMI | M: <1 | NA | NA |
| Hirani, 2015 [42] | FNIH | 5.0 | DXA | M: ALM <19.75 kg | HGS | M**: <**26 kg | NA | NA |
|  | FNIH | 3.4 | DXA | M: ALM <19.75 kg | HGS | M: <26 kg | 6 m walk | M: ≤0.8m/s |
| McLean, 2014 [41] | FNIH | 0.13 | DXA | M: ALM <19.75 kg  F: ALM <15.02 kg | HGS | M: <26 kg  F: <16 kg | NA | NA |
|  | FNIH | 0.05 | DXA | M: ALM/BMI <0.789  F: ALM/BMI <0.512 | HGS | M: <26 kg  F: <16 kg | NA | NA |
|  | FNIH | 0.08 | DXA | M: ALM <19.75 kg  F: ALM <15.02 kg | HGS/BMI | M: <1.00  F: <0.56 | NA | NA |
|  | FNIH | 0.13 | DXA | M: ALM/BMI <0.789 F: ALM/BMI <0.512 | HGS/BMI | M: <1.00  F: <0.56 | NA | NA |
| Tang, 2018 [45] | FNIH | 9.5 | DXA | M: ALM/BMI <0.789  F: ALM/BMI <0.512 | HGS | M: <26 kg  F: <16 kg | NA | NA |
|  | FNIH |  | DXA | M: ALM/BMI <0.789  F: ALM/BMI <0.512 | HGS/BMI | M: <1.00 m2  F: <0.56 m2 | NA | NA |
| Kim, 2016 [44] | AWGS | 20.9 | DXA | M: ALM/h2 <7.0 kg/m2  F: ALM/h2 <5.4 kg/m2 | HGS | M: <26 kg  F: <18 kg | 4 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
|  | FNIH | 20.2 | DXA | M: ALM/BMI <0.789  F: ALM/BMI <0.512 | HGS | M: <26 kg  F: <16 kg | NA | NA |
|  | FNIH | 15.7 | DXA | M: ALM/BMI <0.789  F: ALM/BMI <0.512 | HGS | M: <26 kg  F: <16 kg | 4 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
| Bachettini, 2019 [40] | EWGSOP | 8.8 | CC | M: ≤34 cm  F: ≤33 cm | HGS | M: <30 kg  F: <20 kg | 4 m walk | M: <0.8 m/s  F: <0.8 m/s |
|  | EWGSOP2 | 3.4 | CC | M: ≤34 cm  F: ≤33 cm | HGS | M: <29.7 kg  F: <16.2 kg | 4 m walk | M: <0.8 m/s  F: <0.8 m/s |
|  | EWGSOP2a | 10.1 | NA | NA | HGS | M: <29.7 kg F: <16.2 kg | NA | NA |
| Sim, 2019 [38] | EWGSOP | 24.1 | DXA | F: ALM/h2 <5.67 kg/m2 | HGS | F: <20 kg | TUG | F: >8.30 s |
|  | EWGSOP | 10.7 | DXA | F: ALM/h2 <5.28 kg/m2 | HGS | F: <17.1 kg | TUG | F: >8.51 s |
|  | FNIH | 9.4 | DXA | F: ALM/BMI <0.512 | HGS | F: <16 kg | NA | NA |
|  | FNIH | 11.9 | DXA | F: ALM/BMI <0.517 | HGS | F: <17.1 kg | NA | NA |
| Sobestiansky , 2019 [39] | EWGSOP | 20.9 | DXA | M: ALM/h2 <7.26 kg/m2 | HGS | M: <30 kg | 6 m walk | M: <0.8 m/s |
|  | EWGSOP2 | 20.2 | DXA | M: ALM/h2 <7.0 kg/m2 | HGS, CST | M: <27 kg, >15 s | NA | NA |
|  | EWGSOP2a | 73.0 | DXA | NA | HGS, CST | M: <27 kg, >15 s | NA | NA |
|  | FNIH | 8.4 | DXA | M: ALM/BMI <0.789 | HGS | M: <26 kg | NA | NA |
| Locquet, 2019 [37] | AWGS | 6.60 | NR | NR | NR | NR | NR | NR |
|  | EWGSOP | 13.6 | DXA | M: ALM/h2 <7.26 kg/m2  F: ALM/h2 <5.5 kg/m2 | HGS | M: <30 kg  F: <20 kg | SPPB | M: ≤8 pts F: ≤8 pts |
|  | FNIH | 5.6 | NR | NR | NR | NR | NR | NR |
|  | IWGS | 18.4 | NR | NR | NR | NR | NR | NR |
| Woo, 2015 [34] | AWGS | 7.3 | DXA | M: ALM/h2 <7.0 kg/m2  F: ALM/h2 <5.4 kg/m2 | HGS | M: <26 kg  F: <18 kg | 6 m walk | M: <0.8 m/s  F: <0.8 m/s |
|  | EWGSOP | 9.0 | DXA | M: ALM/h2 <6.52 kg/m2 F: ALM/h2 <5.44 kg/m2 | HGS | M: <28 kg  F: <18 kg | 6 m walk | M: <0.8 m/s  F: <0.8 m/s |
|  | FNIH | 5.6 | DXA | M: ALM/BMI <0.789  F: ALM/BMI <0.512 | HGS | M: <26 kg  F: <16 kg | NA | NA |
|  | FNIH | 2.0 | DXA | M: ALM/BMI <0.789  F: ALM/BMI <0.512 | HGS | M: <26 kg  F: <16 kg | 6 m walk | M: <0.8 m/s  F: <0.8 m/s |
|  | IWGS | 20.2 | DXA | M: ALM/h2 <7.23 kg/m2  F: ALM/h2 <5.67 kg/m2 | NA | NA | 6 m walk | M: <1.0 m/s  F: <1.0 m/s |
| **Outpatients** | |  |  |  |  |  |  |  |
| Kamijo, 2018 [52] | AWGS | 10.9 | BIA | M: ASM/h2 <7.0 kg/m2  F: ASM/h2 <5.7 kg/m2 | HGS | M: <26 kg  F: <18 kg | 10 m walk | M: <0.8 m/s  F: <0.8 m/s |
| Mori, 2019 [53] | AWGS | 40.3 | DXA | M: ALM/h2 <7.0 kg/m2  F: ALM/h2 <5.4 kg/m2 | HGS | M: <26 kg  F: <18 kg | NA | NA |
| Giglio, 2018 [48] | EWGSOP | 36.5 | DXA | M: AMMI <7.26 kg/m2  F: AMMI <5.45 kg/m2 | HGS | M: <30 kg  F: <20 kg | NA | NA |
| Olesen, 2019 [50] | EWGSOP | 17.0 | BIA | M: SMI <10.76 kg/m2  F: SMI <6.76 kg/m2 | HGS | M: <30 kpa F: <20 kpa | TUG | <9 s (<70y), <10.2 s (70-80y), <12.7 (>80y) |
| Ren, 2016 [60] | EWGSOP | 13.7 | BIA | M: SMI <10.76 kg/m2 F: SMI <6.76 kg/m2 | HGS | M: <30 kg  F: <20 kg | NA | NA |
| Santos, 2019 [51] | EWGSOP | 5.4 | DXA | M: AMMI <7.26 kg/m2 F: AMMI <5.45 kg/m2 | HGS | M: <30 kg  F: <20 kg | NA | NA |
| Aliberti, 2019 [54] | FNIH | 31.0 | CC | M: ≤34 cm  F: ≤33 cm | HGS | M: <26 kg  F: <16 kg | NA | NA |
|  | FNIH | 24.1 | CC | M: ≤34 cm  F: ≤33 cm | HGS | M: <26 kg  F: <16 kg | 4.5 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
| Kittiskulnam, 2017 [55] | FNIH | 3.9 | BIS | M: MM/h2 <7.89 kg/m2  F: MM/h2 <6.05 kg/m2 | HGS | M: <26 kg  F: <16 kg | NA | NA |
|  | FNIH | 11.3 | BIS | M:SMM <32.0% F: SMM <27.85 % | HGS | M: <26 kg  F: <16 kg | NA | NA |
|  | FNIH | 15.8 | BIS | M: MM/BSA <14.31 kg/m2  F: MM/BSA <11.64 kg/m2 | HGS | M: <26 kg  F: <16 kg | NA | NA |
|  | FNIH | 14.0 | BIS | M: MM/BMI <0.97  F: MM/BMI <0.72 | HGS | M: <26 kg  F: <16 kg | NA | NA |
|  | FNIH | 3.6 | BIS | M: MM/h2 <7.89 kg/m2  F: MM/h2 <6.05 kg/m2 | NA | NA | 4.5 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
|  | FNIH | 13.8 | BIS | M: MM/BW (\*100)< 32.68 %  F: MM/BW (\*100)< 27.85 % | NA | NA | 4.5 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
|  | FNIH | 14.0 | BIS | M: MM/BSA <14.31 kg/m2  F: MM/BSA <11.64 kg/m2 | NA | NA | 4.5 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
|  | FNIH | 12.7 | BIS | M: MM/BMI <0.97 m2 F: MM/BMI <0.72 m2 | NA | NA | 4.5 m walk | M: ≤0.8m/s  F: ≤0.8m/s |
| Lin, 2019 [49] | AWGS | 8.7 | BIA | M: SMI <8.87 kg/m2  F: SMI <6.42 kg/m2 | HGS | M: <26 kg  F: <18 kg | 6 m walk | M: <0.8 m/s  F: <0.8 m/s |
|  | EWGSOP | 13.5 | BIA | M: SMI <10.76 kg/m2  F: SMI <6.76 kg/m2 | HGS | M: <30 kg F: <20 kg | 6 m walk | M: <0.8 m/s  F: <0.8 m/s |
| **Inpatients** |  |  |  |  |  |  |  |  |
| Harimoto, 2017 [71] | AWGS | 23.3 | CT | M: SMA of <75% of (126.9 x body surface area -66.2) cm2 F: SMA of <75% of (125.6 x body surface area -81.1) cm2 | HGS | M: <26 kg  F: <18 kg | 10 m walk | M: <0.8 m/s  F: <0.8 m/s |
| Hu, 2017 [72] | AWGS | 18.3 | DXA | M: ALM/h2 <6.92 kg/m2  F: ALM/h2 <5.13 kg/m2 | HGS | M: <26 kg  F: <18 kg | 4 m walk | M: <0.8 m/s  F: <0.8 m/s |
| Kaido, 2017 [73] | AWGS | 13.9 | BIA | <90% of the lower limit of the standard kg | HGS | M: <26 kg  F: <18 kg | NA | NA |
| Yang, 2017 [74] | AWGS | 17.0 | Wen’s formulae | M: ASM/h2 <6.7 kg/m2  F: ASM/h2 <4.75 kg/m2 | HGS | M: <26 kg  F: <18 kg | 4 m walk | M: <0.8 m/s  F: <0.8 m/s |
| Yoo, 2018 [75] | AWGS | 28.7 | DXA | M: ALM/ h2 <7.0 kg/m2  F: ALM/ h2 <5.4 kg/m2 | HGS | M: <26 kg  F: <18 kg | NA | NA |
| Zhang, 2019 [76] | AWGS | 22.6 | BIA | M: ASMI <7.0 kg/m2 F: ASMI <5.7 kg/m2 | HGS | M: <26 kg  F: <18 kg | 6 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
| Atmis, 2019 [63] | EWGSOP | 32.5 | BIA | M: SMI <9.2 kg/m2  F: SMI <7.4 kg/m2 | HGS | M: <32 kg  F: <22 kg | 4 m walk | M: <0.8 m/s  F: <0.8 m/s |
| Bayraktar, 2020 [69] | EWGSOP | 14.0 | BIA | M: FFMI <16.55 kg/m2 F: FFMI <13.38 kg/m2 | HGS | M: <30 kg  F: <20 kg | NA | NA |
| Beretta, 2020 [70] | EWGSOP | 38.9 | CC | M: ≤34 cm  F: ≤33 cm | HGS | M: <27 kg  F: <17 kg | TUG | M: >20s  F: >20s |
| Bernabeu-Wittel, 2019f [64] | EWGSOP | 21.8 | BIA | M: SMI <10.76 kg/m2  F: SMI <6.76 kg/m2 | HGS | M: <30 kg  F: <20 kg | 4 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
| Cerri, 2015 [59] | EWGSOP | 27.5 | BIA | M: SMI <8.87 kg/m2  F: SMI <6.42 kg/m2 | HGS | M: <30 kg  F: <20 kg | 4 m walk | M: <0.8 m/s  F: <0.8 m/s |
| Gariballa, 2013 [56] | EWGSOP | 10.0 | MAMC | M: <21.1 cm  F: <19.2 cm | HGS | M: <30 kg  F: <20 kg | NA | NA |
| Isoyama, 2014 [57] | EWGSOP | 20.6 | DXA | M: ALMI <7.3 kg/m2  F: ALMI <5.5 kg/m2 | HGS | M: <30 kg  F: <20 kg | NA | NA |
| Perez-Zepeda, 2017 [61] | EWGSOP | 40.1 | BIA | M: SMI <10.76 kg/m2  F: SMI <6.76 kg/m2 | HGS | M and F: Lowest quintile | 6 m walk | M & F: Lowest quintile |
| Pourhassan, 2018 [62] | EWGSOP | 25.0 | BIA | M: SMI <8.87 kg/m2  F: SMI <6.42 kg/m2 | HGS | M: <30 kg  F: <20 kg | SPPB | M: ≤8 pts F: ≤8 pts |
| Rustani, 2019 [65] | EWGSOP | 39.5 | MAMC | M: <21.1 cm  F: <19.2 cm | HGS | M: <30 kg  F: <20 kg | 4 m walk | M: <0.8 m/s  F: <0.8 m/s |
| Sanchez-Rodriguez, 2019 [66] | EWGSOP | 46.3 | BIA | NR | HGS | NR | 4m walk | NR |
| Sanchez-Rodriguez, 2014 [24] | EWGSOP | 46.5 | BIA | NR | HGS | NR | NA | NA |
| Teng, 2019 [67] | EWGSOP | 27.7 | BIA | M: LBM/h2 <16.7 kg/m2 F: LBM/h2 <14.6 kg/m2 | HGS | M: <30 kg F: <20 kg | 5 m walk | M: <0.8 m/s  F: <0.8 m/s |
| Vetrano, 2014 [58] | EWGSOP | 27.8 | BIA | M: SMI <8.87 kg/m2  F: SMI <6.42 kg/m2 | HGS | M: <30 kg  F: <20 kg | 4 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
| Zengarini, 2019 [68] | EWGSOP | 25.5 | BIA | M: SMI <8.87 kg/m2  F: SMI <6.42 kg/m2 | HGS | M: <30 kg  F: <20 kg | 4 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
|  | EWGSOP2 | 15.7 | BIA | M: SMI <7.0 kg/m2  F: SMI <5.5 kg/m2 | HGS | M: <27 kg  F: <16 kg | 4 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
| Malafarina, 2019 [78] | EWGSOP2 | 50.8 | BIA | M: ASMM/h2 <7.0 kg/m2  F: ASMM/h2 <6.0 kg/m2 | HGS | M: <27 kg  F: <16 kg | 4 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
| Bianchi, 2019 [77] | EWGSOP2 | 22.8 | BIA | M: ASM/h2 <7.0 kg/m2  F: ASM/h2 <5.5 kg/m2 | HGS | M: <27 kg  F: <16 kg | NA | NA |
|  | FNIH | 23.9 | BIA | M: ASM/BMI <0.789  F: ASM/BMI <0.512 | HGS | M: <26 kg  F: <16 kg | NA | NA |
| Sipers, 2019 [79] | EWGSOP | 50.6 | BIA | M: SMI <8.87 kg/m2 F: SMI <6.42 kg/m2 | HGS | Cut-offs BMI categoryc | 4 m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
|  | FNIH | 27.2 | BIA | M: SMI <8.87 kg/m2  F: SMI <6.42 kg/m2 | HGS | M: <26 kg  F: <16 kg | NA | NA |
|  | IWGS | 72.8 | BIA | M: SMI <10.76 kg/m2  F: SMI <6.76 kg/m2 | NA | NA | 4 m walk | M: <1.0 m/s F: <1.0 m/s |
| **Nursing home residents** | | | | |  |  |  |  |
| Buckinx, 2018 [84] | EWGSOP | 36.3 | BIA | NR | HGS | NR | SPPB | NR |
| Henwood, 2017 [82] | EWGSOP | 40.2 | BIA | M: SMI <8.87 kg/m2  F: SMI <6.42 kg/m2 | HGS | M: <30 kg  F: <20 kg | 2.4 m walk | M: <0.8 m/s  F: <0.8 m/s |
| Landi, 2012 [80] | EWGSOP | 32.8 | BIA | M: SMI <8.87 kg/m2  F: SMI <6.42 kg/m2 | HGS | M: <30 kg  F: <20 kg | 4 m walk | M: <0.8 m/s  F: <0.8 m/s |
| Saka, 2016 [81] | EWGSOP | 73.4 | MUAC, CC | M: <23.8 cm, <31.0 cm  F: <23.8 cm, <31.0 cm | HGS | M: <30 kg  F: <20 kg | 4m walk | M: ≤0.8 m/s  F: ≤0.8 m/s |
| Yalcin, 2017 [83] | EWGSOP | 29.0 | BIA | M: SMI <8.87 kg/m2  F: SMI <6.42 kg/m2 | HGS | M: <30 kg  F: <20 kg | 4 m walk | M: <0.8 m/s  F: <0.8 m/s |

ALM: appendicular lean mass, AMMI: appendicular muscle mass index, ASM: Appendicular skeletal muscle, ASMI: appendicular skeletal muscle index, ASMM: appendicular skeletal muscle mass, AWGS: Asian Working Group for Sarcopenia, BMI: body mass index, BIA: bioelectrical impedance analysis, BIS: bioimpedance spectroscopy, BSA: body surface area, BW: body weight, CC: calf circumference, CT: computerized tomography, DXA: dual-energy X-ray absorptiometry, EWGSOP: European Working Group on Sarcopenia in Older People 2010, EWGSOP2: European Working Group on Sarcopenia in Older people 2018, F: female, FFMI: fat free mass index, FNIH: Foundation for the National Institutes of Health, HGS: hand grip strength, IWGS: International Working Group for Sarcopenia, LBM: lean body mass, LMS: leg muscle strength, M: male, MAMC: midarm muscle circumference, MM: muscle mass, MUAC: mid-Upper Arm Circumference, NA: not applicable, NR: not reported, pts: points, s: seconds, SMI: skeletal muscle index, SPPB: short physical performance battery, TUG: timed up and go test, y: years, aprobable sarcopenia by EWGSOP2 algorithm, bMales: (BMI ≤ 24kg/m2) GS ≤ 29kg, (BMI 24.1–28kg/m2) GS ≤ 30kg, (BMI > 28kg/m2) GS ≤ 32kg; Females: (BMI ≤ 23kg/m2) GS ≤ 17kg, (BMI 23.1–26 kg/m2) GS ≤ 17.3 kg, (BMI 26.1–29 kg/m2) GS ≤ 18 kg, (BMI > 29 kg/m2) GS ≤ 21 kg, cMales: (BMI ≤ 24 kg/m2) GS ≤ 29 kg, (BMI 24.1–28 kg/m2) GS ≤ 30 kg, (BMI > 28 kg/m2) GS ≤ 32 kg; Females: (BMI ≤ 23 kg/m2) GS ≤ 17 kg, (BMI 23.1–26 kg/m2) GS ≤ 17.3 kg, (BMI 26.1–29 kg/m2) GS≤18kg,(BMI > 29kg/m2) GS ≤ 21kg, dMales: (BMI ≤ 24), GS ≤ 29kg, (BMI < 24.1-26), GS ≤ 30kg, (BMI < 26.1-28), GS ≤30kg , (BMI > 28), GS ≤ 32kg; Females: (BMI ≤ 23), GS ≤ 17kg, (BMI < 23.1-26), GS ≤ 17.3kg, (BMI < 26.1-29), GS ≤ 18kg, (BMI > 29), GS ≤ 21kg, eusing anthropometry to estimate ASM, farticle included outpatients and inpatients.