**Appendix 1: Treatment and intervention (Local studies)**

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| **Author****(year)** | **Study design and study setting**  | **Sample****size** | **Age (SD) & gender** | **Specific sarcopenia diagnosis used** | **Summary of findings**  | **Quality (GRADE)**  |
| Chew STH et al2020 [53] | Randomized control trial;Community-dwelling older adults >65 years at medium or high nutritional riskIntervention: ONS: HMB, 262kCal, 10.5g protein, 8.5g fat, 34.2g carbohydrate, 310IU Vitamin D3 per serving; 2 servings per dayDuration of treatment: 180 days | 811 (406 intervention, 405 control) | 74.15(0.26);Male=324 (40%) | NA | * Intervention group was more likely to achieve primary composite outcome (33.4% vs 8.7%, p<0.001)
* Intervention associated with higher grip strength in females at Day 180, and higher leg strength in overall cohort at Day 90
* Intervention was associated with greater calf and mid-arm circumference at Day 90 and Day 180 but no difference in ASMI in group with low ASMI at baseline.
* In group with normal ASMI, intervention associated with greater leg strength at Day 30 and higher ASMI at Day 90 compared with placebo
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| Liu X et al 2020 [54] | Quasi-experimental study; Community-dwelling, community setting | 31 | 77.1 (5.9); Male=12 (38.7%) | NA | * Post-Baduanjin outcomes in hand grip strength, knee extension strength, TUG, MQ, FES, MoCA, GDS, and EQ-5D-5L index score appeared to be better. The reduction of frailty and PPA fall risk scores was of moderate-to-large effect size.
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| Lu YX et al2019 [55] | Post hoc secondary analysis; parallel-group randomized clinical trial; Community-dwelling prefrail or frail older persons with sarcopenia; Community centres  | 92 | 70.0(4.7);Male=33 (35.9%)  | AWGS 2014 | * Older persons with sarcopenia are responsive to the effects of multidomain lifestyle interventions
* 25 of 92 participants (27.2%) experienced sarcopenia reduction at 3 months and 24 of 92 (26.1%) had sarcopenia reduction at 6 months
* Sarcopenia reduction was most pronounced through improved gait speed, and occurred more among those who were male, were younger, or had greater muscle mass
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| Ng TP et al2015 [56] | Parallel group, randomized controlled trial; Prefrail or frail older adults 65 years and above, cognitively intact (MMSE >23), community-dwellingExcluded: major depression, audiovisual impairment, progressive degenerative neurologic disease, terminal illness with life expectancy < 12 months | 246 | 70(4.7);Male=95 (38.6%) | NA | * Frailty score and status over 12 months were reduced in all groups, including control (15%), but were significantly higher (35.6% to 47.8%) in the nutritional (OR=2.98), cognition (OR=2.89), and physical (OR=4.05) and combination (OR=5.00) intervention groups.
* Beneficial effects were observed at 3 months and 6 months, and persisted at 12 months.
* Improvements in physical frailty domains (associated with interventions) were most evident for knee strength (physical, cognitive, and combination treatment), physical activity (nutritional intervention), gait speed (physical intervention), and energy (combination intervention)
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ASMI: Appendicular skeletal muscle mass/height2; FES: Fall Efficacy Scale; GDS: Geriatric Depression Scale; HMB: beta-hydroxy-beta-methylbutyrate; MMSE: Mini-Mental State Examination score; MoCA: Montreal Cognitive Assessment; MQ: Maastricht Questionnaire; ONS: oral nutritional supplement; PPA: Physiological Profile Assessment; TUG: Time Up and Go.