



PHARMACOLOGY

Sarcopenia Guideline 2018-2019 - Intervention

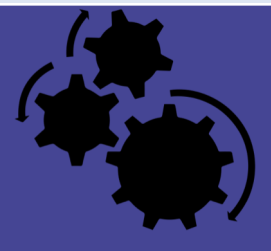
BVGG - SBGG



WHY?

To provide an evidence-based overview of the possible pharmacological interventions for sarcopenia targeting one or more of the three sarcopenia domains (muscle mass, muscle strength or physical performance).

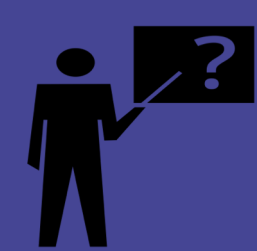
No distinct pharmacological recommendations for healthy, presarcopenic and sarcopenic older people can be made because specific characterization of the sarcopenia status was lacking from most studies. However, recommendations can be made for older people in general.



HOW?

An umbrella review on pharmacological interventions was performed:

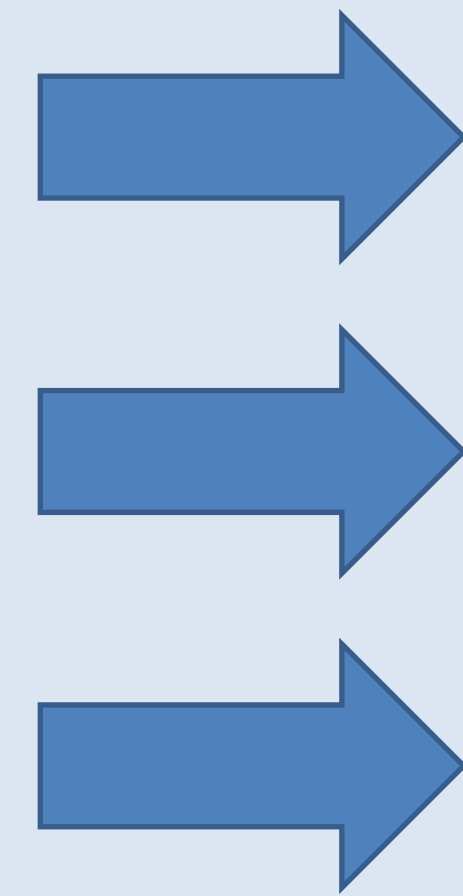
- *Population*: older adults (65+)
- *Intervention*: pharmacological
- *Control*: non-exposed control
- *Outcome*: sarcopenia
- *Study design*: systematic review, metaanalysis
- *Quality assessment*: AMSTAR checklist



DATA HANDLING

Initial search yielded 519 eligible reviews of which 7 were finally included.

Key characteristics of the reviews, including participants, pharmacological treatment and outcomes assessed were retrieved. Recommendations were generated based on the overall syntheses about the main effect of interventions within each intervention.



Muscle mass

Muscle strength

Physical performance



VITAMIN D

- ✓ Muscle strength
- ✓ Physical performance



TESTOSTERONE

- ✓ Muscle strength
- ✓ Muscle mass



Beta-Estradiol + Cyclic Norethisterone Acetate



Dehydroepiandrosterone



Pioglitazone



Angiotensin-Converting Enzyme Inhibitors



Growth Hormone



Testosterone + Growth Hormone



Growth Hormone-Releasing Hormone



Insulin-Like Growth Factor 1



RECOMMENDATION

- We recommend **vitamin D supplementation** to improve muscle strength and physical performance in older people, especially women, with low baseline serum levels. Monitoring of the serum calcium is needed
- **Testosterone supplementation** may be considered in older men with serum levels < 200–300 ng/dl and clinical muscle weakness, to improve muscle mass and muscle strength. Monitoring of the hematocrit, lipid profile and prostatic parameters is needed