**SUMMARY OF NEW CONCLUSIONS**

**OF THE DOCTORAL DISSERTATION**

**PhD student:** Tran Chau Quyen

**Name of dissertation: *“Development and validation of height and weight estimation for hospitalized elderly from certain hospitals during the period 2018 to 2022”***

**Major:** Nutrition

**Code:** 9720401

**Academic advisors:** 1. Nghiem Nguyet Thu, MD., PhD

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**Institution:** National Institute of Nutrition

**New conclusions of the doctoral dissertation*:***

Weight and height represent fundamental criteria for nutrition care process. When elderly individuals are unable for conventional measurements, it's crucial to estimate using formulas.

This study marks the first attempt to create a set of formula for height and weight estimation using anthropometric characteristics of Vietnamese elderly within hospital setting. Subsequently, this leads to the creation of lookup tables and the technical procedures for guiding the estimation of height and weight in case of elderly individuals unable to assume conventional measurements.

The cross-sectional study includes equation development, validation, and critical ill elderly validation; equation application using lookup table and technical procedures.

The height estimaion equations in men were EH (cm) = 1,529 x KH (cm) + 88,201 or EH (cm) = - 0.188 x Age + 1.440 x KH (cm) + 106.816 can be applied in clinical practice; The weight estimaion equations in men EW (kg) = 1.507 x MAC (cm) + 1.381 x CC (cm) - 29.401 and in women EW (kg) = 0.987 x MAC (cm) + 1.374 x CC (cm) - 20.090 can be applied in general clinical practice but noted that the estimated results may be more prone to errors in women. However, it's advisable to restrict the use of these formulas to critically ill elderly. The technical procedure for estimating the height and weight of elderly patient were approved by the Council of Science and Technology of the National Institute of Nutrition.

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