

Vitamin D in Liquid Food Supplements: are labels in line with RDA?

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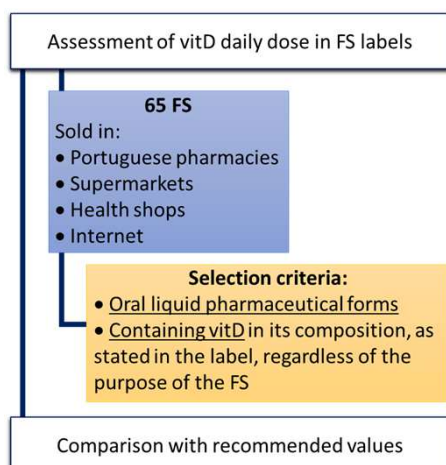
INTRODUCTION

Nowadays, it has been observed an **increased consumption in vitamins and food supplements (FS)**. In Portugal, in 2018, more than 2 million individuals reported the intake of these products (1). Media has paid particular attention to the high prevalence of vitamin D (VitD) deficiency, which may explain its highest consumption (2). This vitamin increases intestinal calcium absorption and plays a central role in its homeostasis. Although vitD toxicity is uncommon, being a fat-soluble vitamin, **excessive supplementation may result in body accumulation and toxicity (3)**.

OBJECTIVES

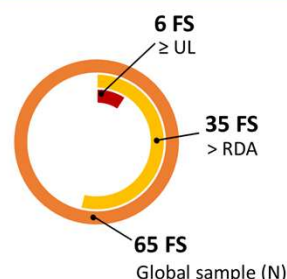
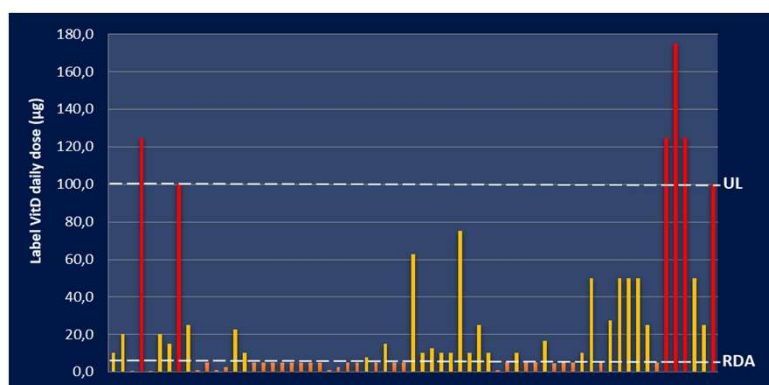
The aim of this study was to **evaluate if daily dose of vitamin D claimed in FS labels is in conformity with the recommended daily allowance (RDA)** for this vitamin defined by European Union Directive and Portuguese legislation (4).

MATERIAL & METHODS



RESULTS & DISCUSSION

35 FS (54%) presented **vitD label doses above RDA** and **6 FS (9%)** indicated a **daily dose \geq the tolerable upper intake level** defined by EFSA (UL=100 $\mu\text{g}/\text{day}$). Results are shown in Figures 1 and 2.



Figures 1 and 2- Results of vitD FS label doses

CONCLUSIONS

- **VitD label dose far exceeded RDA value in most of the FS evaluated** and some exceeded UL defined by EFSA.
- Currently, the economic operators who place FS on the market are the responsible for the safety and the authenticity of label data.
- These products are **often taken without any medical supervision or counselling** and **vitD excess may trigger adverse effects**.
- Considering that some of these liquid formulations are for **children consumption**, it increases the concern about FS safety.
- **It is imperative that the daily doses of this vitamin are reviewed in FS, in accordance to RDA values.**

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