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P.44 PATTERNS OF SUPPLEMENT CONSUMPTION AND INTERACTION RISKS AMONG POLYMEDICATED OLDER ADULTS: A DESCRIPTIVE STUDY†

Maria Deolinda Auxtero[1], Ana Isabel Fernandes[1]

1. Egas Moniz Center for Interdisciplinary Research (CiiEM), Egas Moniz School of Health & Science, Caparica, Almada, Portugal

Emails: Maria Deolinda Auxtero (mauxtero@egasmoniz.edu.pt), Ana Isabel Fernandes (aifernandes@egasmoniz.edu.pt)

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Polypharmacy is increasingly common among older adults due to the rising burden of chronic diseases. Concurrently, the use of food supplements (FS)—including vitamins, minerals, and herbal products—is widespread and often unsupervised. Unlike medicines, FS are not reimbursed or subjected to stringent regulation, potentially exacerbating pharmacological and financial vulnerabilities in this population. Although perceived as safe, FS can interact with prescribed drugs, particularly in the elderly, due to age-related changes in drug metabolism and the cumulative risks of multiple therapies. Despite the recognition of the risks, there is a scarcity of systematic data on the utilisation of FS among polymedicated older adults, particularly within community settings. As such, the aim of this work was to describe patterns of FS use among polymedicated older adults and identify potential supplement–drug interactions using validated pharmacological databases. The study's findings are expected to provide valuable insights that will inform clinical practices and health policy. This cross-sectional study was conducted within the ESPIEM 2024/2025 cohort under the Healthy Ageing – Egas Moniz Interdisciplinary Project. A convenience sample of 98 community-dwelling individuals aged ≥65 years and on polypharmacy was recruited by third-year pharmacy students. Informed consent was obtained from all subjects involved in the study. Data collection included demographic details, medication and FS profiles (product, duration, motivation, cost), and recommendation source (professional or self-initiated). Potential FS–drug interactions were assessed using DrugBank and Medscape interaction tools, focusing on CYP isoenzymes and P-glycoprotein pathways. Of 98 participants, 18 (18.4%) reported FS use, corresponding to 21 distinct products. Users took an average of 4.6 medications alongside FS; the latter were most commonly for musculoskeletal (43%) or cognitive (38%) support. The majority of FS were oral solids (e.g., tablets, capsules), and 66.7% of users were women. While 57% of FS were recommended by health professionals, 38% were self-initiated. Duration of use exceeded 3 months for 72% of users, with an average monthly cost of €18.23 (up to €55). Importantly, 71% of FS had potential interactions via CYP or P-gp pathways (induction or inhibition), indicating pharmacokinetic and pharmacodynamic concerns. However, no combinations were classified as life-threatening. FS use among polymedicated older adults reflects a complex intersection of pharmacological risk, financial burden, and regulatory gaps. Despite a low prevalence in the sample, the sustained and largely unsupervised use of FS underscores the need for improved medication reviews and patient education. Limitations of the study include a small number of FS users, reducing statistical power and generalizability, and the possibility of underreporting. Nevertheless, the findings support integrating FS monitoring into clinical practice and health policy, especially within a One Health framework aimed at promoting safe and equitable ageing.

Keywords: POLYPHARMACY; FOOD SUPPLEMENTS; DRUG–SUPPLEMENT INTERACTIONS; GERIATRIC PHARMACOTHERAPY; ONE HEALTH