

# Screening for Levels of 25-Hydroxyvitamin D and Levels Thyroid Hormones Among Elderly

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## Dear Editor,

Between 2000 and 2050, the proportion of the world's population over 60 years will double from about 11% to 22% [1]. The number of older people who are no longer able to look after themselves in developing countries is forecast to quadruple by 2050 [1, 2]. Even in poor countries, older people die of non-communicable diseases such as heart disease, cancer and diabetes, rather than from infectious diseases. In addition, older people often have several health problems, such as diabetes and heart disease, at the same time. The number of older people who are no longer able to look after themselves in developing countries is forecast to quadruple by 2050. Many of the very old lose their ability to live independently because of limited mobility, frailty, or other physical or mental health problems. Many require some form of long-term care, which can include home nursing, community care and assisted living, residential care and long stays in hospitals [2, 3]. Vitamin D affects bone and muscle health and likely reduces the risk of falls in the elderly. The serum 25OHD concentration is the best available clinical indicator of vitamin D status [3]. Thyroid function regulates a wide array of metabolic parameters. Thyroid function significantly affects lipoprotein metabolism as well as some cardiovascular disease. The aim of this study is to Determining for levels of 25-hydroxyvitamin D, levels thyroid hormones. In This cross-sectional study, the sample size was estimate with sample size formula and prevalence studies with regard to Confidence 95%. Avoiding of Drug consumption in the last 3 months, which interfere with vitamin D metabolism and haven't any Chronic renal disease. Vitamin D deficiency has been historically defined and recently recommended by the Institute of Medicine (IOM) as a 25(OH) D of less than 20 ng/mL. Vitamin D insufficiencies has been defined as a 25(OH) D of 21 - 29 ng/mL

and was done by electrochemiluminescence immunoassay diagnostic kits. Thyroid-stimulating hormone (TSH, thyrotropin) is the most sensitive test for thyroid hormone function and may be suppressed by excess free T3 or free T4 in the blood, thus in this study a sample of blood was collected from elderly volunteers and hormone levels TSH and T4 were analyzed. Finally. In this study, the study population consisted of elderly (n = 300) men and women above 60 with mean  $70.49 \pm 7.39$  years. The prevalence of recognized thyroid disease (either self-reported history of thyroid disease or current thyroxin treatment) was 12.5%. An additional 4.3% of participants had unrecognized thyroid disease (abnormal TSH). The TSH was abnormal in 6.3% of women and 2.3% of men. 87.5% of those with an abnormal TSH did not report a history of thyroid disease. The prevalence of hypothyroidism increased with increasing age in both sex. Mean values of serum 25(OH) D was (13.7 + 14.53ng/mL, respectively). Serum concentrations of 25(OH) D below 20 ng/mL, typically considered below normal, characterized in 16.9% of cases. Although much remains to be elucidated regarding medical, social and economic factors, the high figures obtained for newly discovered abnormal 25(OH) D and thyroid function suggest that screening for hyper- and hypothyroidism may be worthwhile in such an elderly population.

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