

## **ULTRASONOGRAPHIC ASSESSMENT OF BONE MINERAL DENSITY IN ELDERLY POPULATION OF CROATIA**

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Quantitative ultrasound is a widely used screening tool for estimating the bone mineral density (BMD) and serving as a good predictor for the osteoporotic fractures. Since elderly are particularly vulnerable to osteoporotic fractures, the aim of the present study was to report the prevalence of osteoporosis in population aged 85+. A screening by means of Hologic sonometer has been performed on 261 participants (58 men, 203 women) aged 85-100 (88.4±3.1) living in old people's homes in Zagreb, Croatia. The osteoporosis (T-score < -2.5) is observed in 10.3% men and 46.8% women. T-values ranging from -1 to -2.5 indicating osteopenia are found in 43.1% men and 44.8% women while T-values within the normal range are found in 46.6% men and 8.4% women. When T-score cut-off value is raised to -1.8, a recommended threshold in quantitative ultrasonography of calcaneus, the osteoporosis prevalence increased to 32.8% in men and 70.0% in women. Those prevalences are substantially higher than those reported for the general population of Croatia aged 50+: 16.2% for men and 30.7% for women (T-score < -1.8). Although the risk for women is much higher the presented data suggests that the fracture risk in senescent male population is also substantial. It should be also noted that the manufacturer's reference ranges (Z values) were not available for 77.6% men and 2.5% women of this sample (i.e. persons older than 85 and 95 yrs respectively). Therefore, the normative values that would be appropriate for elderly male population are necessary to be explored and established.