

Osteoporosis, need for paradigm shift in Nepal health policy

Kattel V¹, Regmi N², Limbu A³, Pradhan B⁴, Maskey R¹

¹MBBS, MD, Department of Internal Medicine, BP Koirala Institute of Health Sciences

²MBBS, MD, Department of Radiology, BP Koirala Institute of Health Sciences

³MBBS, MD Department of Gastroenterology, BP Koirala Institute of Health Sciences

⁴MBBS, MS Department of Orthopedics, BP Koirala Institute of Health Sciences

World Health Organisation (WHO) describes osteoporosis as a 'progressive systemic skeletal disease characterised by low bone mass and micro-architectural deterioration of bone tissue, with a consequent increase in bone fragility and susceptibility to fracture'.¹ Osteoporosis is frequently surveyed diagnosed and treated in developed nations for reason being increasing degenerative diseases among increased aged population. Among risk group of osteoporosis cohort one among three females (33%) and five males (20%) sustain fragility fracture in lifetime.² The cost of managing osteoporotic fracture is much higher than that of prevention.³ Hence efforts are more focused to prevent the osteoporosis by developing evidence based guidelines and implementing as national policy.⁴ The effective strategy for prevention of osteoporosis related burden are through fracture risk assessment, lifestyle measures and pharmacological interventions.⁴ Nepal is expected to have higher burden of osteoporosis with increasing geriatric population in coming decades. Preventive measures has to be implemented before aging population grow with osteoporosis and present to clinician with debilitating fractures and severe pain. Like developed nations these measures has to be implemented by training clinicians to keep low threshold to screen osteoporosis at early stage. Use of fracture risk assessment tool is highly cost effective and sensitive⁵

but validation of such tool in Nepalese population is due. Use of dual-energy X-ray absorptiometry (DXA), ultrasound and computed tomography after screening with fracture assessment tools has been recommended.⁶ However clinical interpretations of the investigations and their feasibility at point of care are the challenges. Rampant use of steroids, thyroxine and proton pump inhibitors as over the counter drugs is likely to compound the burden of osteoporosis.⁴ Besides well accepted culture of consuming alcohol and increasing popularity of habitual smoking among younger generation need to be intervened before the onset of osteoporosis. Current recommendation on life style measures are increasing the level of physical activity, stopping smoking, reducing alcohol intake to ≤ 2 units/day, and reducing the risk of falls and ensuring adequate dietary calcium intake and vitamin D status.⁷ Effective life style measures demands motivation, multiple sessions of goal directed counselling, family and environmental support, self-help group and team work with internist, rheumatologist, metabolic endocrinologist, general practitioner, geriatrician, psychiatrist, psychologist, orthopedics, and physiotherapist.⁵ These measures has to be roll down in policy level along with pharmacological interventions. All most all pharmacological measures are available at urban set up in Nepal. The impact of pharmacological agents requires at least use for a few years. This could compromise compliance by asymptomatic and mild symptomatic patient the target group for preventive strategy. Health insurance can address the cost of non-pharmacological and pharmacological cost in sustainable form.

Correspondence Author

Dr. Vivek Kattel, MBBS MD (Internal Medicine)
Fellow Evidence based medicine
Fellow Tropical & Infectious Disease
Fellow Rheumatology & Clinical Immunology
E-mail: vivekkattel@bpkihs.edu

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