

## Osteoporosis Risk Factor Assessment and Bone Densitometry—Current Status and Future Trends

L K H Koh,\**FAMS, M Med (Int Med), MRCP*, D C E Ng,\*\**FAMS, MRCP*

### Abstract

**Introduction:** Osteoporosis and fragility fractures are problems which will increase in significance as the population of the elderly in many countries increases. The availability of bone mineral density (BMD) measurements, which can define osteoporosis, allows the implementation of effective therapeutic interventions to those at risk for fractures before they occur. Because of the increasing at-risk population and the relatively high cost of these measurements and interventions, a case-finding strategy to detecting osteoporosis has been widely recommended. This review highlights the approach to detecting and diagnosing osteoporosis. **Methods:** A non-systematic review of English-language literature on the diagnosis and assessment of osteoporosis was conducted. **Results:** Many risk factors have been found to be associated with osteoporosis and fractures. These risk factors may be utilised for case finding in deciding who should be evaluated for osteoporosis. Clinical self-assessment tools have been developed to identify women likely to have low BMD who might be recommended for BMD. Several techniques are available for BMD measurement, but the technique of choice for the diagnosis of osteoporosis is dual-energy X-ray absorptiometry (DXA) measured at the hip. BMD thresholds have been widely used to guide osteoporosis treatment. However, recent research has been directed at using risk factor assessment and self-assessment tools to derive medium-term fracture risk as a guide to therapeutic intervention. **Conclusions:** Proper selection of individuals for evaluation and treatment for osteoporosis would include risk factor assessment and appropriate BMD measurement to determine the risk of fracture and the need for intervention.

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**Key words:** Asians, Bone mineral density, Fracture risk, Osteoporosis self-assessment tool for Asians (OSTA), Risk factor assessment, Screening

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\* Consultant

Department of Endocrinology

\*\* Associate Consultant

Department of Nuclear Medicine

Singapore General Hospital

Address for Reprints: Dr Leonard Koh, Department of Endocrinology, Singapore General Hospital, Outram Road, Singapore 169608.