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Review Article

An update of the Malaysian Clinical Guidance on the management of glucocorticoid-induced osteoporosis, 2015

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Abstract

Aim: This Clinical Guidance is aimed to help practitioners assess, diagnose and manage their patients with glucocorticoid-induced osteoporosis (GIO), using the best available evidence.
Methods: A literature search using PubMed (MEDLINE) and The Cochrane Library identified all relevant articles on GIO and its assessment, diagnosis and treatment, from 2011, to update from the 2012 edition. The studies were assessed and the level of evidence assigned. For each statement, studies with the highest level of evidence were used to frame the recommendation.
Results: Consider treatment early in all patients on glucocorticoids (GC) as fracture risk increases within 3–6 months of starting GC. The decision to start treatment for GIO depends on the presence of prior fracture, category of risk (as calculated using FRAX), daily dose and duration of GC treatment, age, and menopausal status. General measures include adequate calcium and vitamin D intake and reducing the dose of GC to the minimum required to achieve disease control. In patients on GC with osteoporotic fractures or confirmed osteoporosis on dual-energy X-ray absorptiometry, bisphosphonates are the first-line treatment. Treatment should be continued as long as patients remain on GC. Algorithms for the management of GIO in both pre- and post-menopausal women and men have been updated.
Conclusions: In post-menopausal women and men above 50 years, bisphosphonates remain the mainstay of treatment in GIO. In pre-menopausal women and men below 50 years, bisphosphonates are recommended for those with a prevalent fracture or at very high risk only.

Keywords: Glucocorticoids; Corticosteroids; Osteoporosis; Guidelines; Malaysia

1. Introduction

Osteoporosis and fractures are major complications of glucocorticoid (GC) therapy. From epidemiological studies, a significant number of the population are at risk; about 2% of the elderly population use oral GCs in the United Kingdom [1] and in the United States, between 1999 and 2008, 1.2% of the population (in the National Health and Nutrition Examination Survey (NHANES) database) were on GC, with 28.8% taking GC for more than 5 years [2]. Many of the inflammatory conditions that may require GC usage are already associated with an increased risk of fracture [3]. The addition of GC

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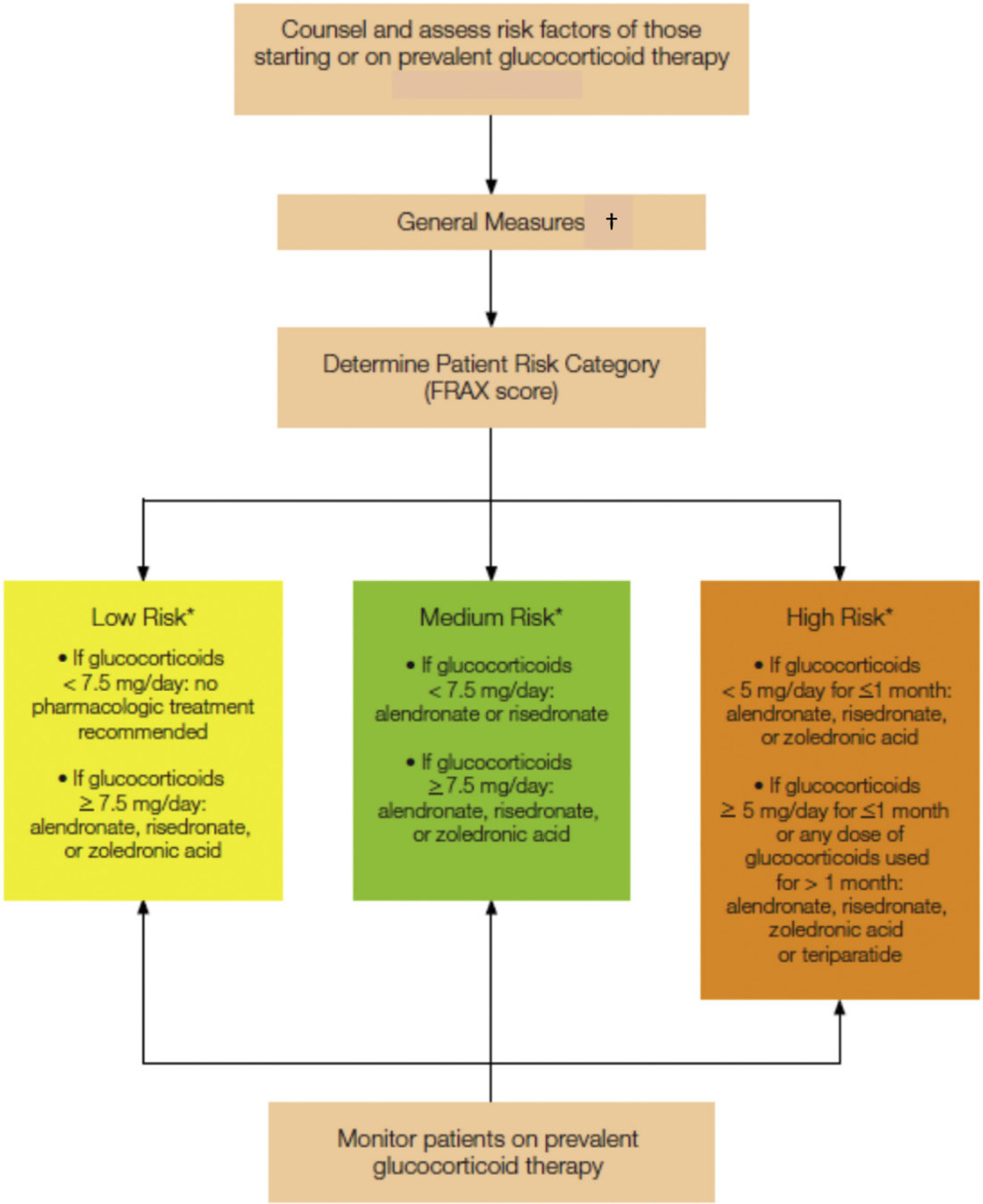

* For low and medium-risk patients, recommendations are for an anticipated or prevalent duration of > 3 months of glucocorticoid treatment

† See section 3.2.1

***FRAX Score**
Low Risk (<10% 10-year risk of fracture)
Medium Risk (10-20% 10-year risk of fracture)
High Risk (>20% 10-year risk of fracture)

Fig. 1. Approach to postmenopausal women and men age >50 years initiating or receiving glucocorticoid therapy [17].

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