

Sample

Long-term Use of Corticosteroids: Think about Bone Health

Practical tips and information for promoting bone health in long-term users of corticosteroids

- Prescribe oral corticosteroids at the lowest possible dose for the shortest possible time
- The greatest rate of bone loss occurs during the first 6–12 months of corticosteroid use, therefore early steps to prevent the development of osteoporosis are important
- Long-term use of high-dose inhaled corticosteroids may also contribute to corticosteroid-induced osteoporosis
- Calcium is necessary for bone health but supplementation should not be routinely prescribed for patients at increased risk of fractures, but may be required if dietary intake is insufficient. Expert opinion suggests that 700–1000 mg per day is likely to be adequate for most people
- Vitamin D is synthesised in the skin and sufficient exposure to the UVB in sunlight will allow a healthy person to meet all their daily vitamin D requirements. If patients are suspected of having a vitamin D deficiency, e.g. frail elderly who are house-bound, the recommended treatment is colecalciferol, 1.25 mg, monthly

Corticosteroid-induced osteoporosis

Bone density loss leading to osteoporosis is a risk for patients taking continuous corticosteroids or who are receiving frequent high dose courses of corticosteroids. The European League Against Rheumatism (EULAR) guidelines consider patients taking doses ≥ 7.5 mg prednisone per day (or equivalent) to be at risk of corticosteroid-induced fractures.¹ The risk of osteoporosis becomes greater at higher corticosteroid doses. Loss of bone mineral density occurs rapidly after corticosteroids are commenced.²

Bisphosphonates


Bisphosphonates such as risedronate and alendronate are recommended for the prophylaxis and treatment of osteoporosis and corticosteroid-induced osteoporosis in patients with risk factors, including: age over 65 years or under 65 years with previous fragility fracture or T-score ≤ -1 . The table below shows the age groups of the 27,817 patients nationally who were dispensed long-term corticosteroids and the proportion of these patients who were also dispensed a bisphosphonate between July, 2012 – June, 2013.

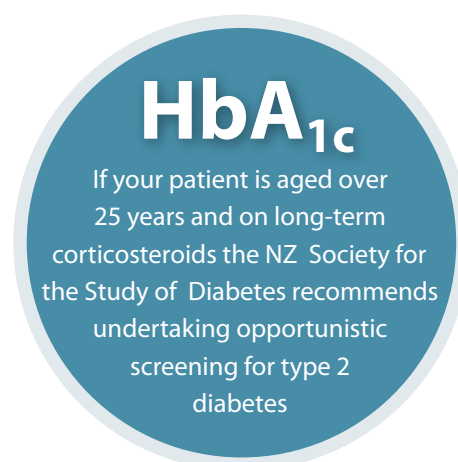
Table 1. Patients receiving long-term prednisone and bisphosphonates July, 2012 -June 2013

Age (years)		Number of patients taking long-term prednisone (≥ 7.5 mg daily, for more than three months)*	% of patients taking long-term prednisone who also had a bisphosphonate*
0–44	Nationally	4,175	6%
	Sample Practice	4	25%
45–64	Nationally	8,703	17%
	Sample Practice	9	22%
65+	Nationally	14,939	30%
	Sample Practice	15	33%

* More than 90 days supply or where days supply was not available, the equivalent number of tablets dispensed anytime during the 12 month period. Does not include hospital administered zoledronic acid. Data for your practice includes prescribing by any health professional during this period.

The proportion of patients who received long-term prednisone and a bisphosphonate is low. Most patients aged ≥ 65 years should be taking a bisphosphonate. Many patients who are 45–64 years may also be likely to benefit from a bisphosphonate if they have additional risk factors. All patients taking long-term corticosteroids can benefit from other approaches that promote bone health, e.g. adequate vitamin D and calcium intake.³

 See Best Practice Journal, Issue 56 for further information on risedronate: www.bpac.org.nz/BPJ



1. Hoes JN, Jacobs JWG, Boers M, et al. EULAR evidence-based recommendations on the management of systemic glucocorticoid therapy in rheumatic diseases. *Ann Rheum Dis.* 2007;66(12):1560–7.
2. eTG complete. Melbourne: Therapeutic Guidelines Limited; 2013. Available from: online.tg.org.au (Accessed Nov, 2013).
3. National Institute for Health Care Excellence (NICE). Clinical Knowledge Summaries: Osteoporosis - prevention of fragility fractures. NICE; 2013. Available from: <http://cks.nice.org.uk> (Accessed Nov, 2013).