



Triceratops horridus

PIC QUESTION OF THE WEEK: 11/05/07

Q: Can you provide the recommended dosage of the various bisphosphonates for treating osteoporosis?

A. Bisphosphonate therapy is commonly prescribed for the prevention or treatment of osteoporosis, Paget's disease, hypercalcemia of malignancy, multiple myeloma, etc. In osteoporosis, the prolonged elimination half-life of these drugs permits daily, weekly, monthly, or more prolonged administration. Parenteral ibandronate and the recent approval of zoledronic acid for once-yearly I.V. administration provide more options for convenient dosing regimens in osteoporosis. Because of the expanding number of drugs available for treating osteoporosis, it is now difficult to be familiar with each of their routes and frequency of administration, dosage, indications, formulations, etc. The table below identifies these aspects of each of the bisphosphonates now used in the treatment and prevention of osteoporosis. The only oral bisphosphonate labeled for monthly *treatment* of osteoporosis is ibandronate. Risedronate can be administered as a regimen of two consecutive daily doses once monthly.

Comparative Dosage Schedules of Various Bisphosphonates Used in Osteoporosis

Indications	Alendronate (Fosamax)	Ibandronate (Boniva)	Risedronate (Actonel)	Zoledronic Acid (Reclast)
Corticosteroid-induced osteoporosis	Treatment: 5 mg orally daily (men and women on HRT); 10 mg orally daily in postmenopausal women not receiving HRT	N/A	Prophylaxis and Treatment: 5 mg orally daily (for men or women)	N/A
Osteoporosis (Male)	Treatment: 10 mg orally daily OR 70 mg once weekly	N/A	Treatment: 35 mg orally once weekly	N/A
Osteoporosis (Post-menopausal)	Prophylaxis: 5 mg orally daily OR 35 mg once weekly Treatment: 10 mg orally daily OR 70 mg once weekly	Prophylaxis: 2.5 mg orally daily OR 150 mg once monthly Treatment: 2.5 mg orally daily OR 150 mg once monthly OR 3 mg IV every 3 months	Prophylaxis and Treatment: 5 mg orally <i>daily</i> OR 35 mg once <i>weekly</i> OR 75 mg tablet on 2 consecutive days <i>once monthly</i>	Treatment: 5 mg IV infused over no less than 15 minutes every 12 months; supplement with calcium and vitamin D

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