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## J.M. Lane, M.J. Gardner, K.R. Flik, and P. Mooar reply:

We find the letter by Fisher et al. to be supportive of our view that there is medical undertreatment of the osteoporotic patient with a hip fracture. Clearly there are individuals at increased risk of fracture because of skeletal factors such as decreased bone mass, inadequate macrostructure and microstructure, and poor quality of bone. In addition, increased rates of falling secondary to neurodysfunction, sedatives, dementia, muscle weakness, and poor health have been implicated<sup>1</sup>. We strongly support the concept of preventive strategies aimed at this higher-risk population.

Fisher et al. described the finding of hypovitaminosis D in patients with hip fractures, although the levels that they reported are higher than those seen in the United States. Since they did not give a definition for hypovitaminosis D, a direct comparison with other series is premature. Lower 25(OH)-vitamin-D levels have been noted in more elderly, institutionalized patients, individuals with malabsorption (sprue), and patients being treated with antiepileptic therapy to prevent seizures. Calcium and vitamin D alone have decreased the hip fracture rate in nursing home patients<sup>24</sup>. We support the use of a combination of physiological calcium (1200 to 1500 mg/day), vitamin D (400 to 800 units/day), and a bisphosphonate or parathyroid hormone (PTH). Intermittent PTH (1-34) has just been approved for both prevention and treatment of vertebral and appendicular fractures. Unlike the bisphosphonates, which work primarily through inhibition of bone resorption, PTH functions as an anabolic agent. At this point in time, there are no clear therapeutic recommendations as to the preferred treatment.

Fisher et al. recommended assigning a geriatrician to each patient with a hip fracture. Clearly they have improved the rate of medical intervention at their hospital in Australia. There are many models for each hospital setting and country medical program. No single method guarantees success. The common theme for the care of patients who have sustained a low-energy hip fracture is that the responsible physicians must be committed to the principle that their patients deserve an investigation and commencement of appropriate treatment. The orthopaedic management of the patient with a hip fracture should include medical intervention. —Joseph M. Lane, MD Michael J. Gardner, MD Kyle R. Flik, MD Pekka Mooar, MD Corresponding author: Joseph M. Lane, MD Department of Orthopaedic Surgery The Hospital for Special Surgery 535 East 70th Street New York, NY 10021 lanei@hss.edu

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