

A Patient Activation Intervention to Enhance Bone Health

Peter M. Cram, MD, MBA

Iowa VA Health Care System & University of Iowa, Iowa City, IA

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BACKGROUND:

Bone mineral density (BMD) peaks in early adulthood and declines progressively with aging. As BMD declines from normal, to low (formerly called osteopenia), to osteoporosis, risk of fractures progressively increases. In an effort to prevent bone loss and reduce fracture risk, most widely accepted guidelines including the U. S. Preventive Services Task Force and the Surgeon General's Office now recommend BMD screening of older adults using dual energy x-ray absorptiometry (DXA). The rationale for screening is that patients and their providers will use DXA results as a "cue to action" and take necessary steps to enhance bone health through lifestyle modification (e. g. weight bearing exercise), Calcium/Vitamin D supplementation, and pharmacotherapy when indicated. However, multiple studies have demonstrated that patients and providers often fail to take recommended actions following DXA testing, thus defeating much of the purpose of the screening. Over the past five years we have systematically developed and pilot tested a low-cost and practical patient activation intervention based upon the Health Belief Model. The intervention consists of the DXA scanning center mailing each patient a customized letter containing the results of their DXA scan plus educational information about osteoporosis, supplemented by a follow-up phone call from a nurse educator. Preliminary studies have demonstrated that the intervention is well received by both patients and providers and enhances bone-related quality of care.

OBJECTIVE(S):

The overarching objective of the current project is to rigorously examine the impact of our patient activation intervention on bone-related quality of care in adults undergoing screening DXA scans through a randomized-controlled trial conducted at three study sites. In addition, we will examine the real-world costs associated with our intervention and the impact of our intervention on the overall cost-effectiveness of BMD screening. We hypothesize that the activation intervention will increase optimization of Calcium/Vitamin D intake, enhance use of pharmacotherapy when indicated, will improve patient satisfaction with their bone-related healthcare, and improve patients' osteoporosis specific knowledge when compared with usual care.

METHODS: We will conduct a randomized-controlled clinical trial to evaluate the impact of a novel and practical patient activation intervention (mailing patients their bone density test results) on the quality of bone-related healthcare and the cost-effectiveness of BMD testing. Equally important, the intervention could easily be modified to include other patient populations and chronic disease.

FINDINGS / RESULTS: There are currently no findings to report.

STATUS: Project is in data collection.

IMPACT:

There is growing evidence that patients undergoing bone mineral density testing (BMD) often do not take important steps to improve their bone health. This research study is targeted to improve bone-related healthcare and the cost-effectiveness of BMD testing. This intervention could be modified to include other patient populations and chronic disease.

PUBLICATIONS:

Journal Articles

1. Girotra S, Lu X, Popescu I, Vaughan-Sarrazin M, Horwitz PA, Cram P. The impact of hospital cardiac specialization on outcomes after coronary artery bypass graft surgery: analysis of Medicare claims data. *Circulation. Cardiovascular quality and outcomes.* 2010 Nov 1; 3(6):607-14.

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