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Study Title: Automated Physical Therapy Referral Process for Older People after Upper Extremity Fracture (ARM): A Feasibility Study

This low rate marks a large missed opportunity to reduce subsequent falls and fractures in this very high-risk group. Prior fall-related injury dramatically increases the risk of subsequent falls, fractures and death. Previous fracture is the strongest predictor of future fracture, with highest risk in the first 6 months, and hip is the most likely subsequent fracture. This lack of recognition of upper extremity fracture as a sentinel event warranting evidence-based fall-prevention strategies reveals an urgent and critical unmet need.

Fall-prevention treatments are effective in reducing falls and fractures in older people. One of the most effective components of fall-prevention programs is targeted, progressive balance and gait training combined with lower extremity strengthening exercise, which reduces fall risk and fall-related injuries by 40-60%. Currently, the predominant delivery model is multi-factorial programs based in primary care, which require dedicated, skilled professional staff and resources. Despite guidelines, policies, and incentives for providing evidence-based fall prevention, successful widespread implementation of effective fall-prevention strategies has been extremely limited.

We will conduct a before and after feasibility study in two large orthopaedic practices to investigate orthopaedist and physical therapist training in evidence-based practice and integration of an automated electronic PT referral process, aimed to increase uptake of evidence-based exercise. The electronic health record (EHR) will be used to identify older patients with new upper extremity fracture and to provide the physician with an electronic referral to PT for balance and gait disorder evaluation. The EHR and health system administrative data will be used to assess referral rates, PT attendance, and PT treatment characteristics. Primary data collection will be conducted to understand orthopaedist, PT and patient values and barriers and facilitators to evidence-based care.