

Objective: To assess impact of time since prior fracture on subsequent fracture risk in postmenopausal women with osteoporosis.

Methods: Female patients (pts) aged 55–90 who had a fracture (fx) identified by ICD-10 code during the 5 y prior to or on index date (01Jan2014) were identified from the Swedish National Patient Register. Pts with Paget's disease/malignancy were excluded. Prescription data were from the Prescribed Drug Register and deaths from the Cause of Death Register.

Pts were followed for occurrence of new fx for 24 months from index date; cumulative incidence of fx from 0–12 and 0–24 months was calculated, accounting for competing risk of death. Time since prior fx (y) was assessed categorically and continuously; impact on subsequent fx risk was estimated using multivariable Cox regression modeling.

Results: We identified 131,440 pts (mean age: 72.7 y) with previous fx in the 5 y prior to index date. 75.8% had 1 prior fx; mean (SD) time since most recent fx was 2.3 (1.4) yrs. 11,644 pts (8.9%) experienced a subsequent fx within 2 y of index date. Cumulative incidence was 4.88 at 12 months and 8.86 at 24 months. 9606 pts died before subsequent fx during follow-up. In the continuous analysis, the risk of subsequent fx decreased with increasing yrs since prior fx: hazard ratio (HR)=0.95 (95%CI 0.94–0.97, $p<0.001$). In the categorical analysis, pts whose most recent fx was in the last 2 y had greater risk compared to those whose most recent fx was 4–5 y before (Table).

Table. Risk of subsequent fragility fracture by time since prior fracture

Risk model ^a	HR	95% CI	p value
Years since prior fx (reference: 4–5)			
0–1	1.17	1.10–1.24	<0.001
1–2	1.13	1.07–1.21	<0.001
2–3	1.05	0.98–1.12	0.150
3–4	1.01	0.94–1.08	0.753

^aEstimates from Cox regression modeling on the cause-specific hazard of fx, adjusted for age; number of prior fxs; prior fx location; osteoporosis treatment, glucocorticoid use, assisted drug dispensing, and/or exposure to drugs that increase the risk of falls within the last 12 months; and Charlson-Quan comorbidity index=(0/1/≥2). HR: hazard ratio

Conclusion: Time since prior fx is an independent predictor of new fx. Recent fx should be considered in fx risk assessment.

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A PRIMARY CARE AUDIT OF FRACTURE RISK MANAGEMENT IN PATIENTS WITH A HISTORY OF BARIATRIC SURGERY

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Objective: To establish whether patients with a history of bariatric surgery have had appropriate fracture risk assessment and management.

Methods: This audit was undertaken in a general practice with a list size of 11,314 on 31 October 2019. The population for this audit were patients who had had type 1 bariatric surgery (Roux en Y, laparoscopic sleeve gastrectomy, gastric bypass). Referring to the American bariatric guidelines the audit standards were:

- A DXA scan should be performed within two years postsurgery (and after this time according to recommendations based on DXA report) (standard 80%)
- Number on fracture prevention treatment if indicated (standard 100%), of whom are taking oral bisphosphonates (standard 0%)

The primary care electronic medical record system (EMIS Web) was used to identify patients and establish whether they had been offered or had undergone a DXA scan within 2 y postsurgery (or were up to date in accordance with relevant recommendations) and to establish which fracture prevention treatment the patient was receiving if appropriate. Re-audit was undertaken on 25 January 2020.

Results: 28 relevant patients were identified at baseline (after excluding those with malignant indications), of whom, 22 were two years postsurgery. 3/22 (14%) patients had a recorded DXA scan 2 y after their surgical procedure. The remaining patients did not have a record of being offered DXA or been identified as requiring fracture prevention treatment. Where relevant, DXA due codes were applied and an invitation letter was sent to patients to ask if they wanted a DXA referral. Subsequently the re-audit identified 26 relevant patients, of who 20 were over 2 y postsurgery. The same 3 (15%) had record of DXA, all the remaining 17 had been invited for DXA referral, of which 7 had been referred since baseline. At baseline and follow-up no patients had been identified as requiring treatment.

Conclusion: Once patients are made aware of the need for a DXA scan, many do engage. Identification of patients with higher risk bariatric procedures in primary care could be improved by systematically coding bariatric surgical procedures, the surgical procedure itself and test due dates with supporting search, report and recall processes.

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EFFECT OF OTAGO EXERCISE ON IMPROVING LOWER LIMB FUNCTIONAL PERFORMANCE AND FALL EFFICACY IN POSTMENOPAUSAL OSTEOPOROTIC ELDERLY WOMEN

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Objective: To study effectiveness of Otago exercise program in improving lower limb functional performance and fall efficacy in postmenopausal osteoporotic elderly women.

Methods: A quasi experimental pretest and post-test design was used for the study. Elderly postmenopausal women in the age group of 60–80 diagnosed cases of osteopenia and osteoporosis, independent, mobile were included in the study. Subjects were excluded if having any impairments in visual, auditory and vestibular system, history of fractures in the past one year, any neurological diseases affecting balance and cognitive function. Based on the inclusion and