

**Title:** *Trabecular bone score and incident fragility fracture risk in adults with reduced kidney function*

## **Supplemental Material**

**Supplemental Table 1.** Variables used in FRAX Tool

**Supplemental Appendix 1.** Algorithm to adjust for fracture probabilities

**Figure S1.** Study cohort

## SUPPLEMENTARY MATERIAL

**Supplemental Table 1.** Variables used in FRAX Tool

|   |
|---|
| Age   |
| Sex   |
| Weight (kg)   |
| Height (cm)   |
| Parental hip fracture   |
| Previous fracture   |
| Prolonged use of glucocorticoids  |
| Current smoking   |
| Alcohol use $\geq 3$ units/day  |
| Secondary osteoporosis (Defined as: Thyroid disorders, Inflammatory bowel disease, Prolonged immobility, Type I diabetes, Untreated hypogonadism, or Chronic obstructive pulmonary disease) |
| Rheumatoid arthritis  |
| Femoral neck BMD (T-score) is optional  |

**Sources:** 1. FRAX World Health Organization Fracture Risk Assessment Tool [Internet]. World Health Organization; 2011. Available from <http://www.shef.ac.uk/FRAX/index.aspx>. 2. Kanis JA, McCloskey EV, Johansson H, Strom O, Borgstrom F, Oden A: How to decide who to treat. *Best Pract Res Clin Rheumatol* 23: 711-726, 2009

### **Supplemental Appendix 1.** Algorithm to adjust for fracture probabilities

To adjust the 10-year major osteoporotic fracture probabilities for TBS we used the following formula:

The 10-year probability of major osteoporotic fracture calculated with TBS is  $\frac{100}{1+e^{-W}}$

where  $W = 5.340 - 4.213 \times \text{TBS} - 0.0521 \times \text{age} + 0.0393 \times \text{TBS} \times \text{age} + 0.897 \times L$

where  $L = -\ln(100/p - 1)$

where p is the 10-year FRAX probability calculated without TBS

We then divided our adjusted 10-year major osteoporotic fracture probabilities by two to obtain the 5-year major osteoporotic fracture probabilities.

**Source:** McCloskey EV, Oden A, Harvey NC, Leslie WD, Hans D, Johansson H, Kanis JA:  
Adjusting fracture probability by trabecular bone score. *Calcified tissue international* 96:  
500-509, 2015

**Figure S1.** Study cohort

