# Case finding for the management of osteoporosis with FRAX ${ }^{\circledR}$ —assessment and intervention thresholds for the UK 

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## Erratum to: Osteoporosis

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Tables 7, 8, 9, 10 and Figs. 2, 3, 4 of this article, inadvertently printed in black and white, were intended to be printed in colour. In addition there was an error in the scale of the $y$-axis of Fig. 4. The relevant tables and figures are reproduced below.

The online version of the original article can be found at http://dx.doi. org/10.1007/s00198-008-0712-1.
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Table 7 Management decisions ( $N$, no action; $B$, BMD testing at the femoral neck; $T$, treatment without BMD) in women according to risk factors and age $(\mathrm{BMI}=23.9)$

|  |  |  |  |  |  |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |  |  |  |
| Risk factors | 50 | 55 | 60 | 65 | 70 | 75 | 80 |
|  | B | B | B | B | B | B | B |
| Sm | N | N | N | N | B | B | B |
| GC | N | B | B | B | B | B | B |
| RA | N | N | B | B | B | B | B |
| Alc | N | N | N | B | B | B | B |
| Alc+Sm | N | N | N | B | B | B | B |
| GC+RA | B | B | B | T | T | T | T |
| GC+FH | T | T | T | T | T | T | T |

Table 8 Management decisions ( $N$, no action; $B$, BMD testing at the femoral neck; $T$, treatment without BMD) in women according to risk factors and age $(\mathrm{BMI}=23.9)$

| Age |  |  |  |  |  |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Risk factors | 50 | 55 | 60 | 65 | 70 | 75 | 80 |
| FH | B | B | B | B | B | T | T |
|  | N | N | N | N | B | B | B |
| GC | N | B | B | B | B | B | B |
| RA | N | N | B | B | B | B | B |
| Alc | N | N | N | B | B | B | B |
| Alc+Sm | B | B | B | B | B | B | T |
| GC+RA | B | B | T | T | T | T | T |
| GC+FH | T | T | T | T | T | T | T |

The algorithm additionally takes account of hip fracture probability

Table 9 Assessment chart for men and women with clinical risk factors (CRFs) for fracture without information on BMD

## Assessment without BMD

Men with or without previous fracture Women with no previous fracture
Age 50
Number

| N CRFs |
| :---: |
| of CRF |


| 15 | 20 | 25 | 30 | 35 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 4.5 | 4.3 | 4.3 | 3.7 | 3.3 |
| 2 | 7.1 | 6.7 | 6.5 | 5.7 | 4.9 |
| 11 | 10 | 9.7 | 8.5 | 7.4 |  |

BMI

| 15 | 20 |  | 25 | 30 |
| :--- | :--- | :--- | :--- | :--- |
| 6.3 | 5.7 | 5.4 | 4.7 | 4.1 |
| 9.9 | 8.8 | 8.2 | 7.2 | 6.3 |
| 15 | 13 | 12 | 11 | 9.5 |

Age 60

$\left.$|  | 15 | 20 | 25 | 30 | 35 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 1 | 6.5 | 6.1 | 6.0 | 5.2 | 4.5 |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |$\quad$| 10 | 9.3 | 8.9 |
| :---: | :---: | :---: |
| 15 | 14 | 13 | \right\rvert\, | 11 |
| :---: |


| 15 | 20 |  | 25 |  |
| :--- | :--- | :--- | :--- | :--- |
| 12 | 10 | 9.3 | 8.1 | 7.0 |
| 18 | 15 | 14 | 12 | 11 |
| 27 | 23 | 20 | 18 | 16 |

Age 70
$15 \quad 20 \quad 25 \quad 30 \quad 35$

| 9.0 | 8.5 | 8.2 | 6.9 | 5.9 |
| :---: | :---: | :---: | :---: | :---: |
| 13 | 12 | 12 | 9.9 | 8.4 |
| 20 | 18 | 17 | 14 | 12 |

Age 80

|  | 15 | 20 | 25 | 30 | 35 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 12 | 11 | 11 | 8.7 | 7.1 |
| 2 | 19 | 17 | 16 | 13 | 10 |
| 3 | 27 | 25 | 23 | 19 | 15 |


| 15 | 20 | 25 | 30 |  |
| :--- | :--- | :--- | :--- | :--- |
| 32 | 28 | 25 | 21 | 18 |
| 44 | 40 | 35 | 30 | 25 |
| 56 | 52 | 47 | 41 | 35 |



Cells give the average 10 -year probability of a major osteoporotic fracture according to body mass index (BMI) and age

Table 10 Assessment chart for men and women with clinical risk factors (CRFs) for fracture

## Assessment with BMD

Men with or without previous fracture Women with no previous fracture
Age 50

Number

| of CRFs | -4 |  | -3 |  | -2 |  | -1 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 30 | 14 | 7.5 | 5.1 | 4.0 |  |  |  |
| 2 | 43 | 20 | 11 | 7.5 | 5.9 |  |  |  |
| 3 | 57 | 29 | 16 | 11 | 8.4 |  |  |  |

BMD

| -4 | -3 | -2 |  | -1 |
| :---: | :---: | :---: | :---: | :---: |
| 26 | 13 | 7.6 | 5.5 | 4.8 |
| 37 | 19 | 11 | 8.1 | 7.0 |
| 51 | 27 | 16 | 12 | 10 |

Age 60

|  | -4 | -3 | -2 | -1 | 0 | -4 | -3 | -2 | -1 0 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 31 | 16 | 9.6 | 6.4 | 5.0 | 32 | 18 | 11 | 8.0 | 6.8 |
| 2 | 41 | 23 | 14 | 9.2 | 7.1 | 44 | 25 | 16 | 12 | 9.8 |
| 3 | 53 | 31 | 19 | 13 | 10 | 58 | 35 | 23 | 16 | 14 |

Age 70


Age 80

|  | -4 | -3 | -2 | -1 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 23 | 16 | 10 | 7.0 | 5.3 |
| 2 | 32 | 22 | 15 | 10 | 7.3 |
| 3 | 42 | 31 | 21 | 14 | 10 |


| -4 | -3 | -2 | -1 | 0 |
| :---: | :---: | :---: | :---: | :---: |
| 45 | 29 | 19 | 13 | 9.6 |
| 57 | 40 | 26 | 18 | 13 |
| 67 | 51 | 35 | 25 | 17 |


$\square$ May consider treatment

Consider treatment

Cells give the average 10-year probability of a major osteoporotic fracture according to bone mineral density at the femoral neck (BMD) and age


Fig. 2 Relation between the 10 -year probability of a major osteoporotic fracture and the 10-year probability of a hip fracture in women aged 50 years from the UK. Each point represents a particular combination of BMD and clinical risk factors

Cost/QALY gained (£000)



Fig. 3 Correlation between the probability of fracture and cost effectiveness at the age of 50 years in women (BMI set to 26 kg / $\mathrm{m}^{2}$ ). The upper panel shows the 10 -year probability of hip fracture and the lower panel the probability of a major osteoporotic fracture. Each point represents a particular combination of BMD and clinical risk factors


Fig. 4 Management chart for osteoporosis. The brown area in the left hand panel shows the limits of fracture probabilities for the assessment of BMD. The right hand panel gives the intervention threshold

