SCORECARD FOR OSTEOPOROSIS IN EUROPE (SCOPE)

Epidemiology, Burden, and Treatment of Osteoporosis in the United Kingdom

This document highlights the key findings for the UK, published in “Osteoporosis in Europe: A Compendium of country-specific reports”. View the complete SCOPE 2021 report and related 29 country profiles at: https://www.osteoporosis.foundation/scope-2021

BURDEN OF DISEASE

Individuals with osteoporosis in the UK

3,775,000
INDIVIDUALS WITH OSTEOPOROSIS IN 2019

78.3%
WOMEN

21.7%
MEN

The prevalence of osteoporosis in the total population amounted to 5.2%, on par with the EU27+2 average (5.6%). In the UK, 21.9% of women and 6.7% of men aged 50 years or more were estimated to have osteoporosis.

New fragility fractures in the UK

527,000
NEW FRAGILITY FRACTURES IN 2019

1,444
FRACTURES /DAY
60
FRACTURES /HOUR

The number of new fragility fractures in the UK in 2019 was slightly decreased compared to 2010, equivalent to a decreased population risk of 0.2 fractures per 1000 individuals, totalling 20.5 fractures/1000 individuals in 2019.

Estimated annual number of deaths associated with a fracture event

In addition to pain and disability, some fractures are associated with premature mortality. SCOPE 2021 showed that the number of fracture-related deaths varied between the EU27+2 countries, reflecting the variable incidence of fractures rather than standards of healthcare.

Remaining lifetime probability of hip fracture

Hip fracture is the most serious consequence of osteoporosis in terms of morbidity, mortality and health care expenditure. The remaining lifetime probability of hip fracture (%) at the ages of 50 years in men and women was 4.8% and 13.8%, respectively, placing the UK in the bottom tertile of risk for men and the mid tertile of risk for women.
The cost of osteoporotic fractures in the UK accounted for approximately 2.4% of healthcare spending (i.e., €5.5 billion out of €227.2 billion in 2019), which is lower than the EU27+2 average of 3.5%. These numbers indicate a substantial impact of fragility fractures on the healthcare budget.

**Healthcare cost of osteoporotic fractures**

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<table>
<thead>
<tr>
<th>Type of costs</th>
<th>Cost (2019)</th>
</tr>
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<tbody>
<tr>
<td>Direct cost of incident fractures</td>
<td>€3.0 billion</td>
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<tr>
<td>Ongoing cost resulting from fractures in previous years (long-term disability costs)</td>
<td>€2.4 billion</td>
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<tr>
<td>Cost of pharmacological intervention (assessment &amp; treatment)</td>
<td>€111 million</td>
</tr>
<tr>
<td><strong>Total direct cost</strong> (excluding the value of QALYs* lost)</td>
<td><strong>€5.5 billion</strong></td>
</tr>
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*QALYs: Quality-Adjusted Life-Year – a multidimensional outcome measure that incorporates both the Quality (health-related) and Quantity (length) of life

In 2019, the average direct cost of osteoporotic fractures in the UK was €82.5/person, while in 2010 the average was €96.0/person (decrease of 14%).

The 2019 data ranked the UK in 14th place in terms of highest cost of osteoporotic fractures per capita in the surveyed 29 countries.
High quality of national data on hip fracture rates have been identified in the UK. Data are collected on a national basis and include data on all fragility fractures as well as hip fractures.

In the UK, osteoporosis and metabolic bone disease are not recognised specialties. However, osteoporosis is recognised as a component of specialty training. Moreover, the Royal Osteoporosis Society (ROS) has developed a competency framework for fracture prevention practitioners at the foundation and advanced level.

Advocacy by patient organisations can fall into four categories: policy, capacity building and education, peer support, research and development. For the UK, all four of the advocacy areas were covered by a patient organisation, which was the case for only 10 out of the 26 countries with at least one patient organisation.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Estimate</th>
</tr>
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<tbody>
<tr>
<td>Established national fracture registries</td>
<td>Yes</td>
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<tr>
<td>Osteoporosis recognised as a specialty</td>
<td>No</td>
</tr>
<tr>
<td>Osteoporosis primarily managed in primary care</td>
<td>Yes</td>
</tr>
<tr>
<td>Other specialties involved in osteoporosis care</td>
<td>Rheumatology, Endocrinology, Orthogeriatrics, Metabolic medicine</td>
</tr>
<tr>
<td>Advocacy areas covered by patient organisations</td>
<td>Policy, Capacity, Peer support, Research &amp; Development</td>
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The UK is one of the 12 (out of 27) countries that offered full reimbursement for osteoporosis medications.

The number of DXA units expressed per million of the general population amounted to 7.5 which puts the UK in 23rd place among the EU27+2. In the UK, the estimated average waiting time for DXA amounted to 42 days (22nd rank). The reimbursement for DXA was unconditional.

National fracture risk assessment models such as FRAX® and QFracture® were available in the UK, as well as guidance on the use of fracture risk assessment within national guidelines.

Guidelines for the management of osteoporosis were available in the UK with a focus on different specificities; postmenopausal women, osteoporosis in men, secondary osteoporosis including glucocorticoid-induced osteoporosis.

Fracture Liaison Services (FLS), also known as post-fracture care coordination programmes and care manager programmes were reported for more than 50% of hospitals in the UK.

The UK was one of the few countries with national quality indicators available to measure the quality of care provided to patients with osteoporosis or associated fractures.
Service uptake for osteoporosis in the UK

The condition of service uptake was evaluated with metrics that reflect fracture risk assessment, treatment gap, and management of surgery for hip fractures.

<table>
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<tr>
<th>Measure</th>
<th>Estimate</th>
<th>Rank among EU27+2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of FRAX® sessions/million people/year</td>
<td>5443</td>
<td>2</td>
</tr>
<tr>
<td>Treatment gap for women eligible for treatment</td>
<td>66%</td>
<td>11</td>
</tr>
<tr>
<td>Proportion of surgically managed hip fractures</td>
<td>&gt;90%</td>
<td></td>
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</table>

There was considerable heterogeneity between the countries in web-based FRAX® usage. The average uptake for the EU27+2 was 1,555 sessions/million/year of the general population with an enormous range of 49 to 41,874 sessions/million. For the UK, the use of FRAX® amounted to 5,443 sessions/million in 2019 with a 137% increase since 2011.

Do women at high fracture risk receive treatment?

Many studies have demonstrated that a significant proportion of men and women at high fracture risk do not receive therapy for osteoporosis (the treatment gap). For the UK, the treatment gap amongst women increased to 66% in 2019, compared to 54% in 2010. In the EU27+2 the average gap was 71% but ranged from 32% to 87%.

For the UK, the average waiting time for hip fracture surgery after hospital admission was reported to be 1-2 days. The proportion of surgically managed hip fractures was over 90%.

Acknowledgments

SCOPE Corresponding National Societies based in the UK

- Bone Research Society (BRS)
  www.boneresearchsociety.org
- Royal Osteoporosis Society (ROS)
  www.theros.org.uk

References