

# IMPACT OF FALLS IN THE ELDERLY POPULATION FOR THE SPANISH NATIONAL HEALTH SYSTEM

PIT9

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## BACKGROUND AND OBJECTIVE

- Falls in the elderly are associated with high morbidity, diminished quality of life and an increased risk of mortality and constitutes a serious public health concern.<sup>1</sup>
- Visual impairment\* is an important risk factor for falls; additional risk factors include older age, previous falls, chronic diseases and multiple medication use.<sup>2</sup>
- The objective of this research was to estimate the clinical and economic impact of falls on the Spanish population older than 64 years, under the perspective of the Spanish National Health System (NHS), considering a 1-year time horizon.

## METHODS

- A targeted literature research (TLR) was performed, with a view to estimating, incidence of falls and their associated clinical consequences in a Spanish context, while also considering the main risk factors for falling<sup>2-12</sup>
- Spanish NHS costs attributable to the clinical consequences of falls were sourced from publically available statistics<sup>13</sup> (**Table 1**), as were estimates of the Spanish population >64 years.<sup>14</sup>
- Costs were updated from 2015-2018, using the Spanish Consumer Price Index.<sup>14</sup>

## RESULTS

- Considering 8,908,151 people >64 years, the following clinical consequences were identified as the main cost drivers for the NHS: hip fractures, Colles pelvis, other fractures, hospital visits and ambulatory emergency services.<sup>10</sup> The estimated frequencies of these events are presented in **Table 1**.
- The overall annual cost for the NHS was estimated as being close to **€820 million**. This is broken down by each contributing factor in **Fig 1**.
- In the TLR, one of the most common intrinsic risk factors identified was visual impairment, as well as advanced age, previous falls, select chronic conditions and balance/muscular problems<sup>2,3</sup>
- In addition, several extrinsic factors must be considered, such as slippery surfaces, dim lighting or psychoactive medications.<sup>2,3</sup>

\*The International Classification of Diseases 11 (2018) classifies vision impairment into two groups, distance and near presenting vision impairment<sup>15</sup>

### Distance vision impairment:

Mild – presenting visual acuity worse than 6/12

Moderate – presenting visual acuity worse than 6/18

Severe – presenting visual acuity worse than 6/60

Blindness – presenting visual acuity worse than 3/60

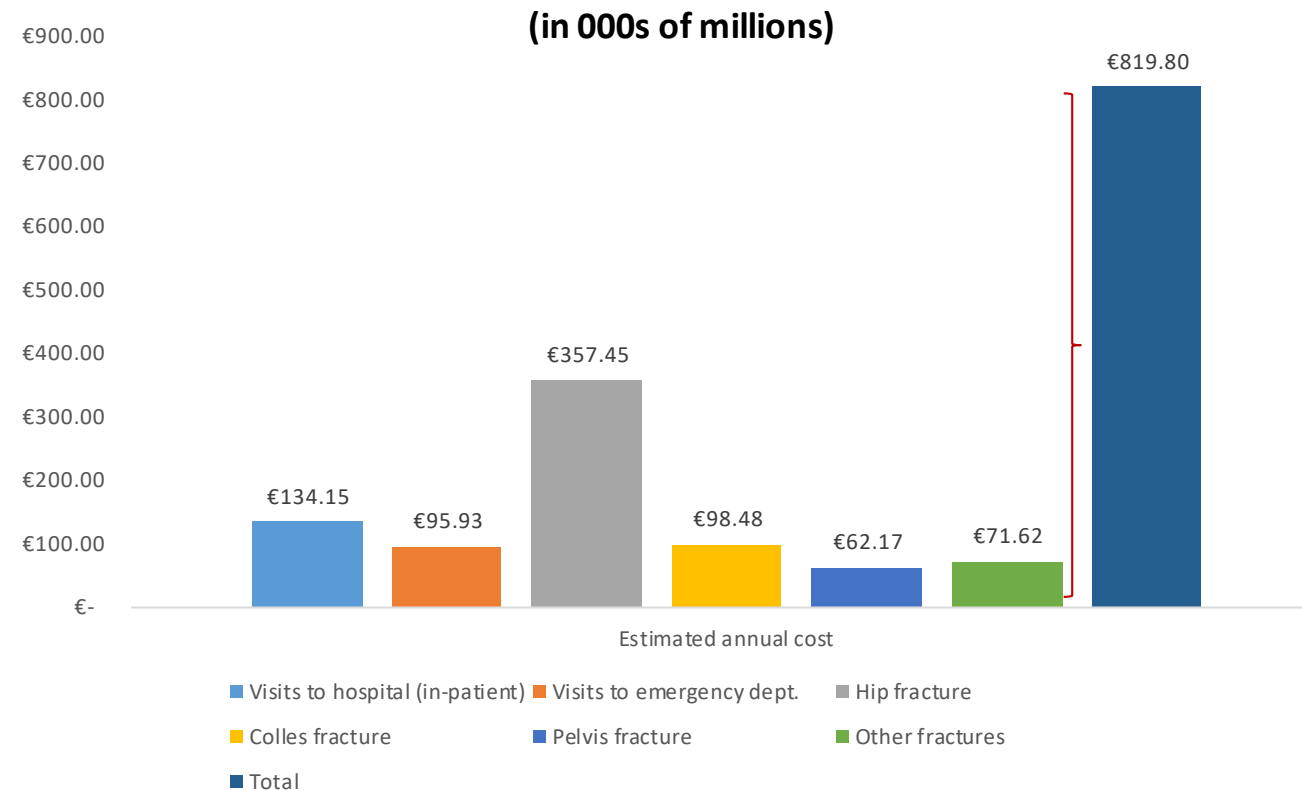
**Near vision impairment:** Presenting near visual acuity worse than N6 or M.08 with existing correction.

**Table 1. Consequences of falling, their costs and frequencies of events**

Total number of people at risk >64: 8.91 million			
Consequences of falling	Frequency of events <sup>10</sup>	No of events	Cost of event <sup>13</sup>
Visits to hospital (in-patient)	18.6%	883,136	€ 152
Visits to emergency dept.	13.3%	631,490	€ 152
Hip fracture	2.3%	109,205	€ 3,273
Colles fracture	1.1%	52,228	€ 1,886
Pelvis fracture	0.4%	18,992	€ 3,273
Other fractures	0.8%	37,984	€ 1,886

Estimated annual costs of falls: €819.20 million

**Fig 1. Estimated annual cost of falls in Spain (in 000s of millions)**



## CONCLUSIONS

- This research highlights that falls in the elderly Spanish population are associated with high morbidity and significant costs, which are estimated here as being close to €820 million annually.
- While multiple factors are associated with the increased risk of falling in the older population, the evidence suggests visual impairment plays a significant role

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Poster presented at the ISPOR Europe meeting, 2-6 November 2019 in Copenhagen, Denmark

**Disclosures:** RB, DOB, XP, CPV, OP & HC are employees of Alcon