

# Incidental osteoporotic fractures and bisphosphonate therapy: a radiology and geriatric collaborative quality improvement project

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## Aims

To identify the proportion of patients in our trust with incidental osteoporotic fractures identified on computed tomography (CT) who go on to be considered for bisphosphonate therapy. For those who were not considered for bisphosphonate therapy, we looked for potential reasons why, so as to create a targeted system to help ensure more of these patients were reviewed for osteoprophylaxis.

## Methods

A retrospective study. We reviewed the scan reports and medical records of all patients who had had inpatient or outpatient CT scans in our trust between 1 and 31 March 2016.

The inclusion criteria were:

- > patients aged 75 years or older
- > CT that included the thoracic and/or lumbar spine.

This produced a sample size of 268 patients.

## Results

Of the 268 scans reviewed, 33 reported incidental osteoporotic fractures. These 33 patients had their medical notes reviewed to see whether or not osteoprophylaxis had been considered following the scan reports; we found that 57% of these patients had not been considered for bone protection. We also identified a wide variation in the terminology used to describe osteoporotic fractures in the CT reports (Table 1). Of note, 22% of the scans with osteoporotic fractures did not have the word 'fracture' in the report at all.

## Conclusion

Following this study, the following changes were made.

- > The radiology department circulated a notice encouraging their radiologists to use the term 'osteoporotic fracture' in their reports, and avoid terms such as 'collapse', so as to aid clinicians

**Table 1. Variation in the osteoporotic fracture terminology**

### Terminology used to describe osteoporotic fractures

Compression fracture  
Wedge fracture / partial wedge fracture  
Collapse  
Sclerosis  
Insufficiency fracture  
Height loss

in identifying these patients as in need of an osteoprophylaxis review.

- > Standardisation of terminology also aided the implementation of an electronic system which picks up radiology reports containing the term 'osteoporotic fractures' and automatically emails a frailty liaison nurse, who in turn can support inpatient management, or help coordinate outpatient review.

At a time in the healthcare service where there is such a strong emphasis on 'making every contact count', we believe our project extends this ethos into ensuring we reap the maximum patient benefit from every investigation that takes place within our trust. ■

## Conflict of interest statement

None declared.

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