

# Models of care for the delivery of secondary fracture prevention after hip fracture: a health service cost, clinical outcomes and cost-effectiveness study within a region of England

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## Plain English summary

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## Plain English summary

A total of 87,000 people have a hip fracture each year in the UK. A broken hip (fracture) happens when an older person falls. The person may have osteoporosis. People who break a hip are at risk of another fracture or of dying. The government recommends the use of specialist fracture liaison services which aim to diagnose hip fracture patients who have osteoporosis and to prescribe treatment. It is unclear how effective these services are in preventing further fractures and reducing mortality.

We used data collected by hospitals and general practitioner surgeries to look at changes in death rates and second fractures after a hospital starts a new service or changes an existing service. We identified dates when changes were made by speaking with doctors and nurses working at each hospital studied.

The appointment of a specialist doctor or nurse working in fracture prevention was associated with a reduction in death rates in patients following a hip fracture. Specialist doctors had a bigger effect than nurses. There was no effect on the chance of patients going on to have a second hip fracture. After working out the costs of these services to the NHS, appointing a specialist doctor is more cost-effective than employing a specialist nurse.

Interviews with doctors and nurses working in these services suggested that little is done to follow up patients after they leave hospital. Many patients stop taking their medication and do not participate in exercise programmes or other effective treatments. This may be a reason why services do not reduce the chances of a second hip fracture.



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