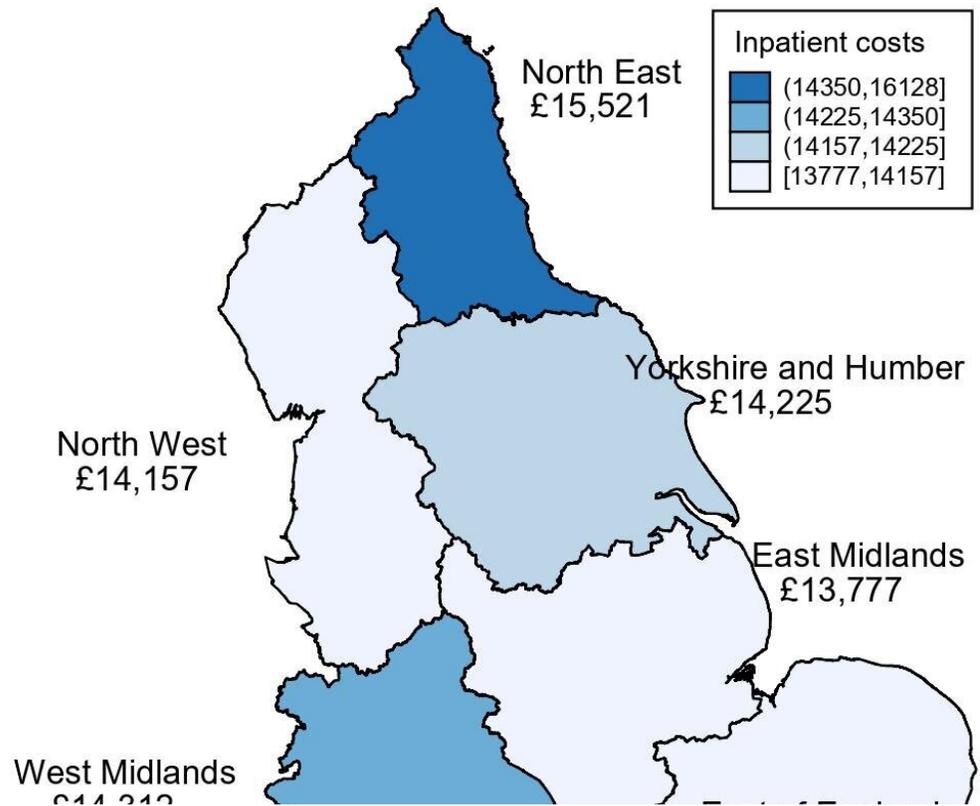


Significant variations in hip fracture health costs and care between NHS hospitals and regions, study finds

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Average inpatient costs after hip fracture admission in English regions over a year. Credit: University of Bristol

There are significant variations in health care spending and care delivery

across NHS hospitals in England and Wales following hip fracture, a new study aimed at understanding how hospital care impacts patients' outcomes and costs has revealed.

The study, led by the University of Bristol, highlights the urgent need for evidence-based quality improvement strategies to reduce health care spending and improve [patient outcomes](#) in the year following a hip fracture. The research is published online in *The Lancet Healthy Longevity* today.

Hip fracture is a serious health concern, with more than 70,000 [older adults](#) admitted to a UK [hospital](#) each year. This study highlights the high health care burden associated with breaking a hip.

The research analyzed data from national databases for 178,757 hip fracture patients aged 60 years and above in England and Wales, who broke their hip between 2016 and 2019, followed up to just before the pandemic. More than one in four patients died within a year of their hip fracture.

Patients spent an average of 32 days in hospital in the year following a hip fracture, resulting in substantial inpatient costs of on average £14,642 per patient—a cost similar to that incurred in the year after a stroke, and that exceeds costs of many common cancers. But this cost varied substantially between hospitals, with more than a two-fold difference in spending, ranging from £10,867 to £23,188 per patient, between NHS hospitals studied in England and Wales.

The researchers identified that in hospitals where patients are up and about quickly after their operation and where physiotherapy is provided seven days a week, patient costs were lower, the risk of sudden confusion (delirium) was reduced, and patients spent fewer days in hospital in the year following hip fracture.

The research further highlighted the crucial role of orthogeriatricians—consultant geriatricians who specialize in the care of people with fractures- in hip fracture care.

Dr. Petra Baji, Senior Research Associate in Health Economics at Bristol Medical School: Translational Health Sciences (THS) and the paper's first author, explained, "The findings suggest that having all patients assessed by an orthogeriatrician within the first days of admission could cut health care spending by £529 per patient, as well as reduce the chance of dying by 15% in the year following hip fracture."

Dr. Rita Patel, Senior Research Associate in Medical Statistics at Bristol and statistician for the study, added, "If a consultant orthogeriatrician attends hospital clinical governance meetings, a further cost savings of £356 could potentially be achieved, as well as patients spending fewer days spent in the hospital in the year following hip fracture."

The study highlights the importance of addressing the way hospitals deliver hip fracture care to improve the effectiveness and efficiency of hip fracture services, and the need to develop evidence-based quality improvement strategies across the UK, to achieve financial savings while also improving patient outcomes.

Celia Gregson, Professor in Clinical Epidemiology in the Musculoskeletal Research Unit at the University of Bristol and Chief Investigator of the study, commented, "The variation we have seen in patient outcomes and health spending following hip fracture are difficult to justify on purely clinical grounds, it tells us that the way we organize the delivery of care can be improved nationally."

"By prioritizing orthogeriatrician assessment, getting patients out of bed promptly after surgery, providing seven-day physiotherapy, reducing delirium risk for patients, and holding monthly multidisciplinary clinical

governance meetings, hospitals stand to improve patient outcomes and reduce their health care spending."

Caroline Aylott, Head of Research Delivery at Versus Arthritis, said, "This research shows the unacceptable state of care for older people who break their hip. The findings show that older people have a high chance of dying within a year of a [hip fracture](#), and that quality of care varies hugely between NHS hospitals in England and Wales."

"As hip fractures mainly affect older people, many of whom live with multiple long-term conditions, this research suggests we are not getting [older people](#)'s care right. That must change."

"The study found that better, faster access to orthogeriatricians and fracture liaison services would not only reduce people's risk of dying and improve chances of a better recovery, but also reduce NHS spending. Just weeks after publication of the NHS workforce plan, the study provides yet further evidence of the desperate and immediate need for a properly resourced NHS."

The research team has already developed a potential solution, after working with the Royal Osteoporosis Society to develop an innovative toolkit—[REDUCE hip fracture service implementation toolkit](#)—informed by the results of their research.

The toolkit is freely available to all health care professionals and service managers to support the quality improvement of fracture service provision within the 172 acute hospital settings across England and Wales.

More information: Petra Baji et al, Organisational factors associated with hospital costs and patient mortality in the 365 days following hip fracture in England and Wales (REDUCE): a record-linkage cohort

study, *The Lancet Healthy Longevity* (2023). DOI: [10.1016/S2666-7568\(23\)00086-7](https://doi.org/10.1016/S2666-7568(23)00086-7)

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