



'I had always been active, even driving every day until I slipped and fractured my hip 2 years ago. The care and after-treatment I received left me eternally grateful to so many people in the NHS. The operation gave me a new lease of life and it was thanks to this that I was able to embark on my record breaking charity walk which saw me become a beacon of hope to the nation amid crisis.'

Captain Sir Thomas Moore



The challenge of the next decade: are hip fracture services ready?

A review of data from the National Hip Fracture Database (January–December 2019)

In association with



Commissioned by



A message from experience

Thirteen years ago, my mother broke her hip after a minor fall. She recovered well after two rounds of surgery, but this opened my eyes to the mortality rates for hip fracture at that time (approximately 3 in 10 sufferers died within a year) and I couldn't help but remain concerned. There began my journey to support improvements in the quality of hip fracture care, and now, having been diagnosed with osteoporosis and at risk of hip fracture myself, the cause is all that closer to home.

In any activity, you can only improve quality by reviewing what you have already achieved; by providing the tool to measure the treatment provided to hip fracture patients and the resulting outcomes, the National Hip Fracture Database; NHFD does just that. I feel privileged to be a member of the programme's Patient and Carer Panel and to have the opportunity, in my small way, to contribute to such an important portfolio of work.

Amid the vast wealth of information, this report responds to some simple questions; the most resounding of which for patients and carers are those directly relating to the road to recovery:

- > Will I be able to get out of bed by the day after my operation?
- > Will you check that I do not become confused after my operation?
- > Will you check that I get back to live in my usual home?

In 2019, the answer to these questions was 'yes' in most hospitals, but there is work to be done to improve care where this was not the case. Of course, each step in the care pathway is equally important; the prompt provision of specialist and operative care are crucial to outcomes, as is reducing the risk of preventable falls in hospital (monitored by the NHFD's sister audit, the National Audit of Inpatient Falls; NAIF) and minimising the risk of further fractures (monitored by the Fracture Liaison Service database; FLS-DB).

Understandably, for most patients and carers, the aftermath of hip fracture is a time of shock and confusion; it can be difficult to think, let alone ask the right questions. I and the other members of the Patient and Carer Panel were able to share our own experience and contribute to the creation of the new carer's guide, specifically designed to support carers in their role throughout the entirety of the care pathway and the patient's life thereafter.

The coronavirus has forced healthcare services to face up to their greatest ever challenge, and the care for patients with hip fractures will have inevitably changed and quite possibly deteriorated. Yet, the results from 2019 within this report provide a message of hope. It is so good to see excellent practice in so many centres and their achievements lay out a target for others to aim for and exceed in the post-coronavirus world.

David Brookfield, Patient and Carer Panel member

The value of involving patients and carers in the design of a hip fracture programme both at local and national level is clearly demonstrated by the contributions made by the members of the Royal College of Physicians Patient and Carer Panel in their development of two invaluable resources, one aimed at informing people what to expect after a hip fracture and another at supporting their carers.

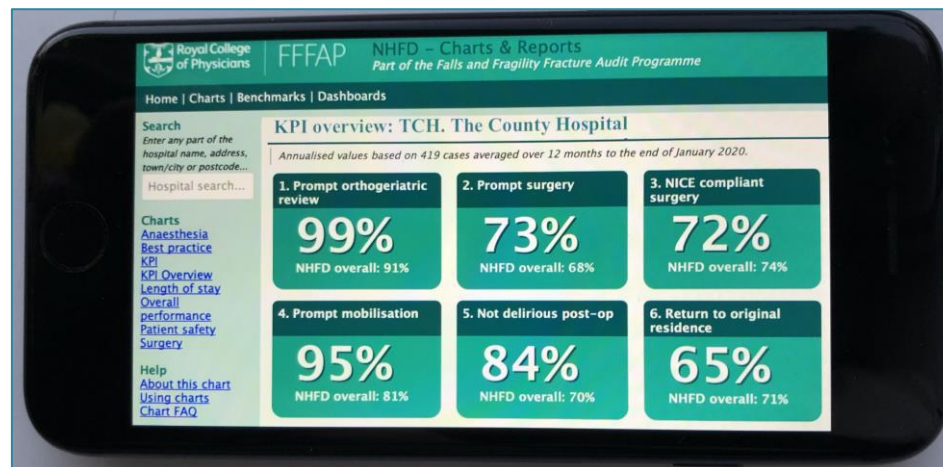
Understanding the experience and impact of suffering a hip fracture as a journey both for the patient and their carer(s) from the initial fall to their acute hospital care and subsequent hospital-based or community-based rehabilitation will help clinicians scrutinise their existing systems in place to constantly improve the quality of care they are able to offer throughout the whole pathway.

Dominic Inman
Orthopaedic surgeon and
National Hip Fracture Database (NHFD)
clinical lead

Foreword

All 174 trauma units in England, Wales and Northern Ireland regularly uploaded data that describe the process, quality and outcome of the care they provided to the 67,302 people who presented with hip fracture in 2019.

This report uses the set of [six NHFD key performance indicators](#) (KPIs) to describe how the quality of patient care varies between hospitals and changes over time.



These KPIs provide an accessible summary of an individual hospital's performance. They are designed to complement the range of data on assessment, operative care, rehabilitation, follow up and outcome presented in the [benchmarking tables](#), [run charts](#) and [dashboards](#) publicly available at: www.nhfd.co.uk.

I congratulate the clinical teams in nine trauma units which in 2019 reported data which shows that the quality of their patients' care was significantly above average – across all six of the NHFD KPIs (95% confidence level).

Six KPIs significantly above average	
ENH	Lister Hospital, Stevenage
FRY	Southmead Hospital, Bristol
KTH	Kingston Hospital, Surrey
LDH	Luton & Dunstable Hospital
NGS	Northern General, Sheffield Hospital
NOR	Norfolk and Norwich Hospital
RVN	Royal Victoria Infirmary, Newcastle
WHI	Whiston Hospital, Merseyside
WIR	Arrowe Park Hospital, Wirral

These units show others that such care is achievable and provide examples of best practice that should be shared across local networks. At the same time, they are driving up the standards to which they and other units must aspire next year.

However, while writing this report in May 2020 I am conscious that 'next year' will be very different, and that this year's report will serve as a baseline against which to measure the most dramatic change in healthcare.

Since the NHFD was established we have pioneered a pattern of collaborative multidisciplinary care informed by continuous governance and quality improvement that is the envy of countries around the world. How well this has equipped trauma services to cope with the coronavirus pandemic will inevitably be the focus of next year's report.

Hip fracture has always been a powerful condition with which to audit, understand and improve the hospital care of frail older people. During the pandemic it rapidly became the focus of attention as the commonest reason for older people to need emergency anaesthesia and surgery, and a key opportunity for us to understand how emergency and elective orthopaedic surgery and rehabilitation would need to be reorganised in the face of the risk of coronavirus.

Anaesthesia, surgery, nursing and rehabilitation after hip fracture have become so successful that clinical staff across the country recognised the need to continue delivering them, even when conservative approaches were being considered for so many other injuries, and in spite of the personal risk that this so often entailed.

We have all lost patients, and many of us have lost colleagues, friends or family members at this terrible time, but I have been heartened by the resilience shown by multidisciplinary teams around the country.

The NHFD serves as a quality improvement platform that encourages innovation by local teams and I look forward to sharing what others have learned and how hip fracture care has developed at a time when necessity is the mother of invention.

Antony Johansen
Orthogeriatrician, Cardiff Trauma Unit;
National Hip Fracture Database (NHFD) clinical lead,
Royal College of Physicians

Facing the challenge of COVID-19

In the early months of 2020, trauma and orthopaedic services faced tremendous change; elective work largely stopped and the nationwide lockdown dramatically reduced all other forms of activity. Individual units faced different pressures with some diverting their admissions to elective beds on other sites or in other trusts.

An NHFD survey at the start of April 2020 received responses from 67 trauma units in England, Wales and Northern Ireland who regularly upload data to the NHFD. Thank you to all those who participated. The survey found widespread changes in orthogeriatrician cover; cover ceased in 12% of units and reduced in almost half (47%); in half (52%) of these cases this was because of illness or self-isolation, but in 39% it reflected staff redeployment to medical or COVID-19 ward duties.

Units have reported hip fracture numbers increasing or decreasing in March and April 2020, but across the 126 units with most consistent data entry there was no significant change. Units also questioned whether patient frailty might have changed with lockdown, but we saw no change in casemix (Fig 1), or in the proportion admitted from care homes.

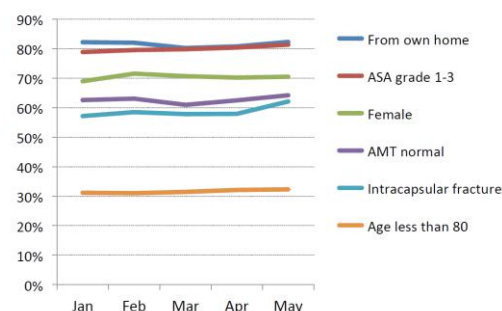


Fig 1. Presentations in each casemix category

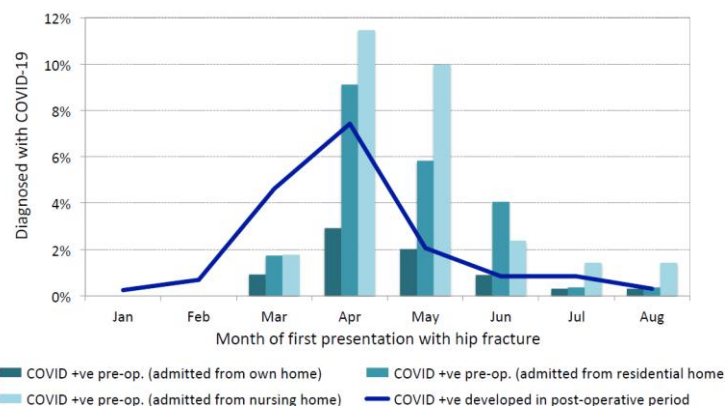


Fig 2. Rate of COVID-19 diagnoses recorded among 33,686 people with hip fracture in early 2020

In May 2020 the NHFD introduced a new question; asking units to identify whether a patient was infected with COVID-19 on admission, or before or after surgery. This information allows us to capture the incidence of infection among people who were inpatients recovering from a hip fracture earlier in the year, among people who were admitted during the pandemic, and in particular those admitted from care homes (Fig 2).

It is too early to examine the impact of COVID-19 in any detail, but it will certainly be considerable. In 2019, just 7.1% of people died in hospital after a hip fracture, but in March 2020 this rose to around 30% for people who already had COVID-19 when they were admitted and for people who developed the infection in hospital (Fig 3).

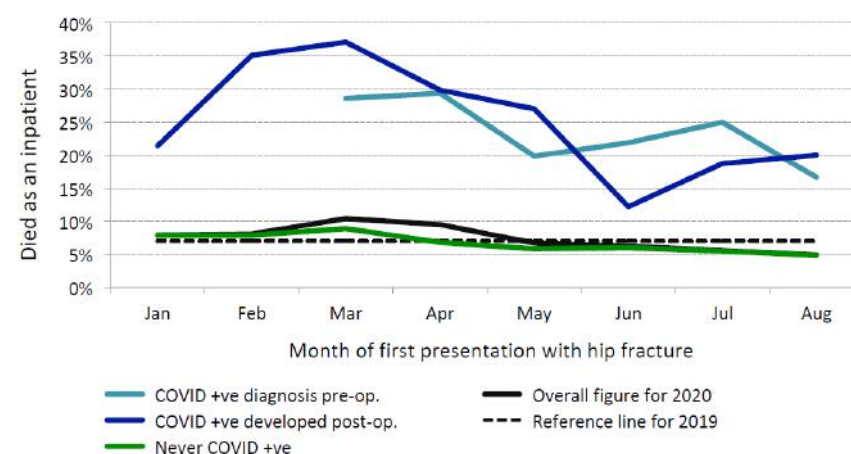


Fig 3. Inpatient deaths and COVID-19 status for people with hip fracture in early 2020

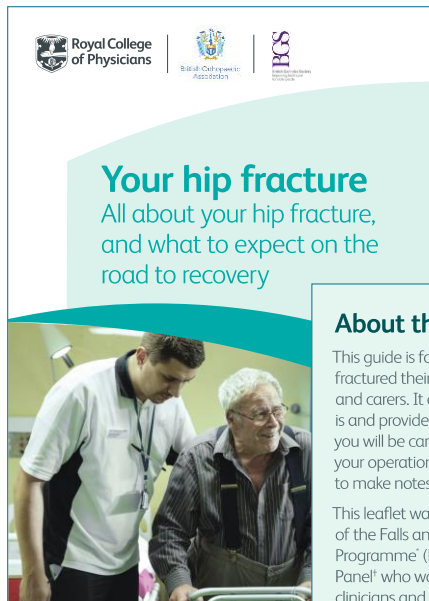
Local NHFD data collection is already providing information that can complement multidisciplinary teams' experiences and will be crucial to redesigning trauma and orthopaedic services that are able to cope with the new challenge of COVID-19. [Guidance](#) on the management of hip fracture in the context of the pandemic has emphasised the continued need for prompt operative management. The NHFD is monitoring this, and challenging units which fail to provide such care.

The impact of COVID-19 on patient care and the organisation of trauma services will be examined in detail in next year's annual report and on the [NHFD website](#).

Supporting people with hip fracture

The 2020 facilities survey showed that 81% of units try to routinely provide patients with an information leaflet; over half (55%) of these have been developed locally in association with patient and carer representatives.

In most units (90%) this focuses on the nature and operative options for different types of hip fracture, and two thirds (66%) of these also discuss anaesthesia and potential complications. In half (53%) the information addresses the nature and management of delirium. In 80% there is discussion of postoperative care, and in 66% there is information on usual rehabilitation pathways.



48% of units reported that they had used the NHFD's previous '12 questions' patient leaflet.

The Patient and Carer Panel of the Falls and Fragility Fracture Audit Programme (FFFAP) have developed this into a new [Your hip fracture care](#) document.

About this guide

This guide is for patients who have fractured their hip, as well as their families and carers. It explains what a hip fracture is and provides key information about how you will be cared for, both before and after your operation. There's also space for you to make notes about your care.

This leaflet was co-produced by members of the Falls and Fragility Fracture Audit Programme* (FFFAP)'s Patient and Carer Panel* who work in partnership with clinicians and the programme team at the Royal College of Physicians* (RCP).

Supporting carers

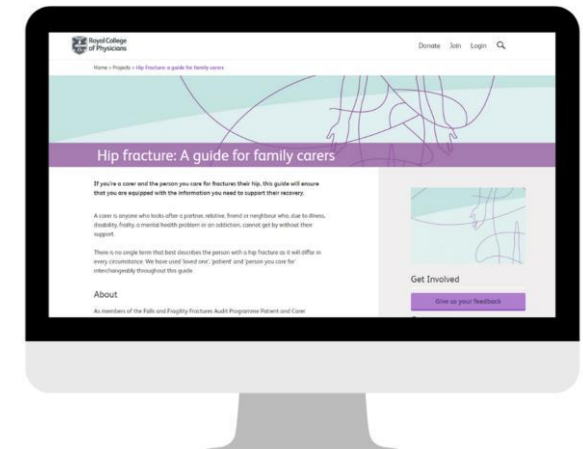
In the 2020 facilities survey, 81% of units said that they routinely identify patients' unpaid or informal carers. However, only 36% provide written information and advice to support this caring role, and only 31% routinely make carers aware of their entitlement to a carer's assessment and how to go about requesting one.

Carer definition: an adult who provides or intends to provide care for someone, but who is not contracted to provide care or providing the care as formal voluntary work.

In response to these findings, our Patient and Carer Panel has used its first-hand experience to build an online resource, specifically designed to support carers of people who have had a hip fracture.

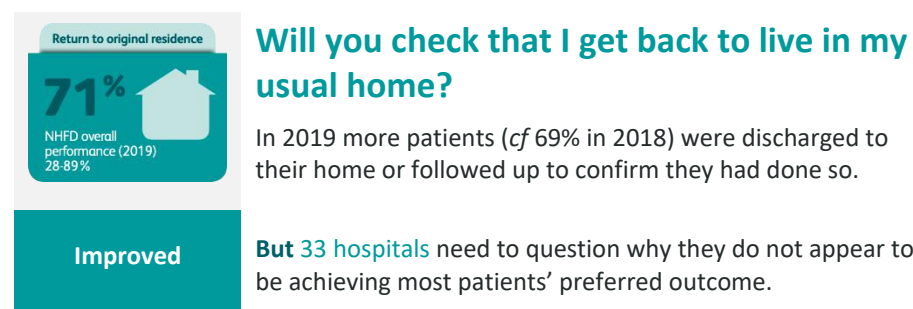
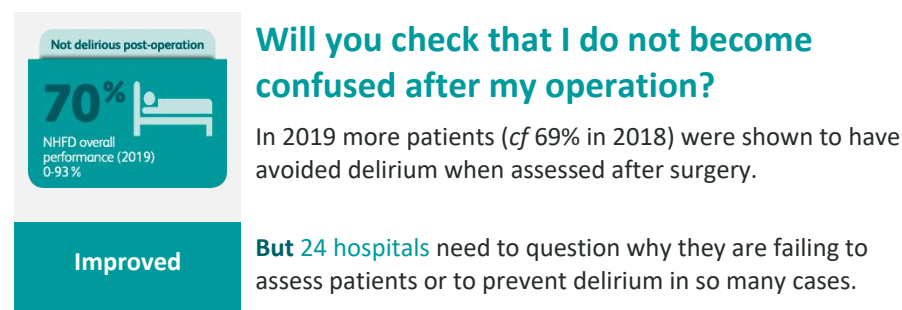
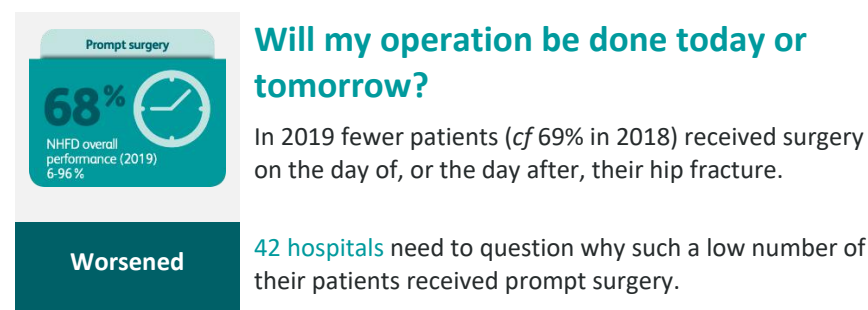
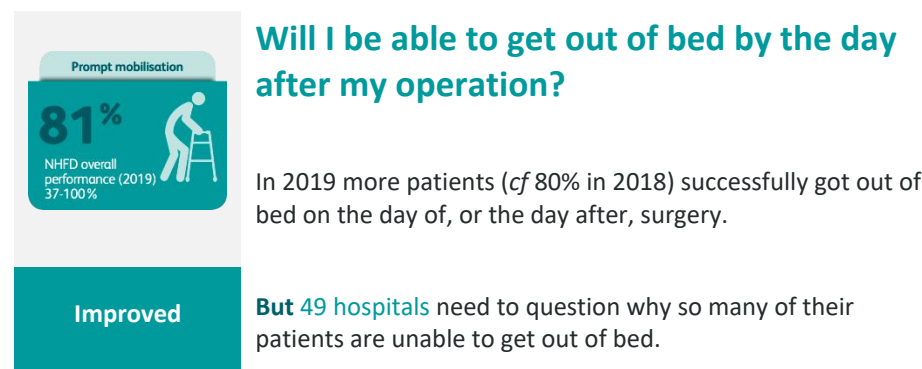
Carers can play a key role in ensuring a high quality of patient care – from the moment of injury, through surgery, rehabilitation and discharge, and beyond these into life after hip fracture.

[Hip fracture: a guide for family carers](#) is available on our website so clinical teams can direct carers to this support for their crucial, but often challenging, role.



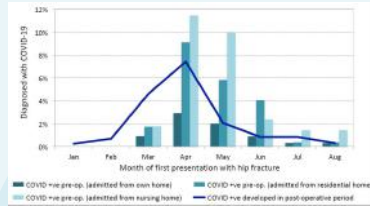
The resource provides essential information, as well as prompts encouraging people to ask important questions that might otherwise be left unanswered.

Key findings

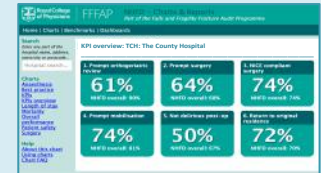


cf = compared to

NHS Leaders should use [NHFD data on COVID-19](#) to understand the course of the pandemic, and the incidence and impact of the virus on frail older people in care homes and hospital



Local hip fracture teams should review the [NHFD KPIs](#) for their unit, and where the NHFD report identifies performance is significantly below average this KPI should be the target for a local QI project in the year ahead



Five QI recommendations

Hospital managers should use the [NHFD runcharts](#) for their hospital to understand the impact of the pandemic: if care has worsened this needs to be addressed in local recovery plans but if it has improved (as it has in many units) then the successful innovation must be sustained



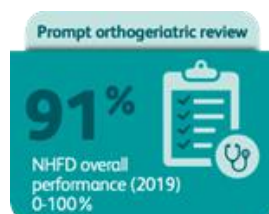
Ward teams should reflect on the additional challenge of social distancing for frail older people in hospital and ensure that they are offering [patient information leaflets](#) and [carer support](#) information like that provided by the NHFD



from the NHFD

NHFD clinical leads should use the new [NHFD casemix adjusted mortality runcharts](#) to check the quality of their data and if 30-day mortality is outside the control limits should consider a mortality review or an external review by the British Orthopaedic Association (BOA)





Key performance

indicator 1

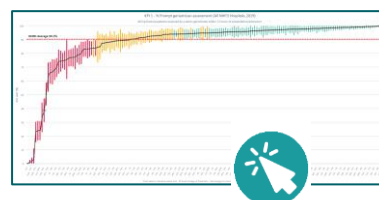
Will I see both an orthopaedic surgeon and a medical specialist after breaking my hip?

Definition: Is the patient assessed by a consultant, staff or associate specialist (SAS), or specialist trainee geriatrician within 72 hours of presentation?

There is compelling evidence that comprehensive geriatric assessment (CGA) improves outcome for people with hip fracture. Early orthogeriatrician review will help in preparing patients for prompt surgery, minimise the proportion managed without surgery (a figure that remained at just 2% in 2019), improve perioperative medical care and expedite rehabilitation and discharge planning.

In 2019 senior orthogeriatricians' job-plans provided for an average of 5.5 hours for each patient admitted with hip fracture. The extent of support varied hugely between units and is described in the 2019 [facilities survey](#).

There remains considerable variation in how likely a patient is to receive an admission assessment by an orthogeriatrician; different hospitals reported figures that ranged from 1–100% of patients in 2019. The range was 23–100% in England, where best practice tariff (BPT) means that this KPI was achieved for 93% of patients in 2019, cf 57% in Wales and 83% in Northern Ireland.



Teams should refer to the [KPI1 chart](#) to see their own performance in this respect.

The KPI chart identifies the three units in Wales which still have no orthogeriatric service. With 30 other units these make up 19% of units with significantly low performance for KPI1; 99.8% confidence limits below the national average. These units should examine local arrangements for delivering the orthogeriatric support that was the central cost-saving recommendation of [NICE CG124](#), and which has been shown to underpin the improvement in hip fracture care in the UK since the NHFD was inaugurated in 2007 (Neuberger 2017).

In part, variation in KPI1 attainment reflects the extent to which orthogeriatric support is being extended to other trauma patients. In this year's facilities survey, 23% of orthogeriatricians reported that they were trying to review all older trauma patients (and 19% of all fragility fracture patients) within 72 hours.

In 32% of units, orthogeriatricians are already seeing people with peri-prosthetic femoral fractures before surgery, and within 72 hours in 41% of units; with corresponding figures of 28% and 38% for people with distal femoral fractures. Similar proportions of units reported that these patient groups were usually admitted from the emergency unit to an orthogeriatric ward; 91 units (53%) now admit directly to what they describe as 'orthogeriatrician-led' wards.

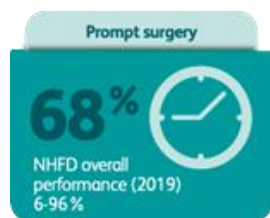
Staffing varies hugely between different units. These wards had an average of 29 beds. After adjustment for this number of beds, the average nurse staffing across the day and average therapist staffing are given in Tables 1 and 2. These tables will help units to benchmark their own staffing levels.

Nursing staff	10am	2pm	2am
Permanent nurses	4.5	4.4	2.9
Agency nurses	0.3	0.2	0.5
Total trained nurses	4.8	4.6	3.4
Permanent HCAs	4.2	3.9	3.2
Agency HCAs	0.4	0.4	0.5
Total HCAs	4.6	4.3	3.6
Total nursing staff	9.4	8.9	7.0

Table 1. Average nurse staffing across the day (adjusted for an average ward, with 29 beds)
HCAs = healthcare assistants

Ward therapist numbers	Trained	Students	Assistants	All
Occupational therapists	1.5	0.2	0.7	2.5
Physiotherapists	2.2	0.4	1.3	3.9
Physiotherapist working (days/week)				
5	6	7		
53%	4%	44%		

Table 2. Average therapist staffing (adjusted for a ward with 29 beds)



Key performance indicator 2

Will my operation be done today or tomorrow?

Definition: Is the date of surgery the same day or the day following first presentation with hip fracture? This KPI is consistent with [NICE CG124](#), rather than with the 36-hour figure used for BPT.

Prompt admission to an appropriate bed

Delays in patients moving from the emergency department to an appropriate orthopaedic or orthogeriatric bed appear to be more common, with 28.7% of people being admitted within 4 hours in 2019, compared with 36.2% in 2018.

Admission to orthopaedic/orthogeriatric ward: impact on care and outcome
(excluding people who break their hip as an inpatient and those managed without surgery)

	<4 hours delay	4+ hours delay	Never admitted	All patients
KPI 1	93%	91%	80%	91%
KPI 2	74%	66%	57%	68%
KPI 3	80%	82%	78%	81%
KPI 4	84%	81%	73%	81%
KPI 5	74%	69%	67%	70%
KPI 6	74%	70%	72%	71%
LOS (days)	13	14	13	14
30-day mortality	4.7%	5.6%	6.9%	5.4%

KPI = key performance indicator; LOS = length of stay

Table 3

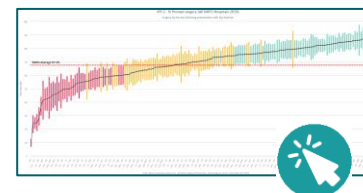
Such patients receive poorer care, with longer length of stay, and higher mortality than those admitted within 4 hours (Table 3). A more marked impact is evident for patients who never reach an orthopaedic or orthogeriatric ward; receiving all their care in an 'outlying ward'. These patients record poor care in respect of all six KPIs, and are more than twice as likely to die within 30 days of their injury.

Prompt hip fracture surgery

Admission delays may have contributed to a slight deterioration in KPI2 from the figure of 69% in 2018 to 68% in 2019. Surgery is the only effective way to address a

patient's pain, so they can get out of bed. Patients waited an average of 34.0 hours for surgery in 2019 (run chart 1.4.20), longer than the 33.1 hours we reported for 2018, and the 31.4 hours being achieved in 2015.

The number of patients who received surgery by the day after fracture ranged from 24–96% in different units. Variation between units was less marked than for KPI1, but the [KPI2 chart](#) highlights 41 units (24%) which should review their performance, as the proportion



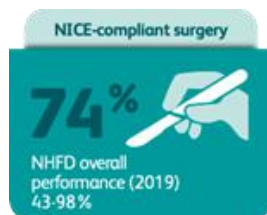
receiving prompt surgery was significantly below the national average.

Most units have addressed the challenge posed by warfarin (Diamant *et al* 2015) and direct oral anticoagulants (DOACs) (Taranu *et al* 2018) and have written policies to expedite surgery that others should seek to copy. Two had no protocol for warfarin reversal. Most (73.1%) give vitamin K if the INR is above a defined level, but many others (25.7%) give it before the INR result is known.

If the patient was taking apixaban and had normal renal, liver and clotting tests, then 5.3% of units would operate without delay. Most units (62%) had a policy to operate >24 hours after the last apixaban dose. One unit (0.6%) waits >36 hours, and 14.6% wait >48 hours. Ten units (5.8%) still had no written policy, but 11.7% said they 'operate at a time directed by individual surgeons or anaesthetists'.

Should we operate even sooner?

The international, multicentre HIP ATTACK trial ([Lancet 2020](#)) randomised patients to accelerated surgery (6-hour median time from diagnosis to surgery) or standard care (24 hours median), but found no difference in mortality at 90 days. However, the accelerated group experienced a reduction in the incidence of delirium, and a 1-day reduction in length of stay. This study adds to the humanitarian case for early surgery and hospital teams should strive to minimise unnecessary delays. [NICE CG124](#) recommends surgery by the day after presentation and in England BPT requires surgery within 36 hours; broadly corresponding to the standard care arm of the HIP ATTACK trial. The 1-year findings and cost implications of accelerated surgery are yet to be published, and will determine whether it is appropriate to revise the objectives set by both NICE and BPT.



Key performance

indicator 3

Will my surgeon offer the type of operation recommended by NICE?

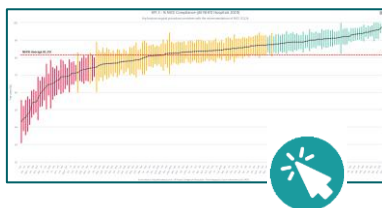
Definition: Does the patient receive the type of orthopaedic procedure that is recommended for their type of fracture in [NICE CG124](#)?

All services had a lead orthopaedic surgeon, but five (2.9%) lacked a lead anaesthetist and seven (4.1%) had no orthogeriatrician lead. There was no clerical support for data entry in 42% of services; with a mean of just 0.5 whole time equivalent clerical support across all units.

In 12% of units, theatre data was always collected by the senior or operating surgeon, and in one unit by the senior anaesthetist, and always by one or other of these in 48%. In the remainder it was entered by a variety of staff.

In 32% of units, neither the senior surgeon nor the anaesthetist were involved, which has serious implications for data quality and the use of NHFD run charts and tables as a basis for local QI work.

[NICE CG124](#) and [NICE QS16](#) place great emphasis on the operation and implant that should be offered for different fracture types, reflecting both the number of trials which have been performed, and the potential cost of some types of implant. The [KPI3 chart](#) highlights 34 units (20%) which should review their performance, as the proportion of their patients who are receiving operations consistent with NICE recommendations was significantly below the national average.



Clinical teams in these units should review their own [surgery run charts](#) which define trends in practice for key procedures on which NICE guidance is available. KPI3 has improved slightly from the overall figure of 72% reported for 2018.

In 2019 we saw further improvement in rates of arthroplasty cementing (92.3%, cf 91.4% for 2018) and use of nails for sub-trochanteric fractures (91.7% cf 89.8%). Recent work using NHFD data on over 80,000 patients questioned the safety of expensive nails for trochanteric fractures ([Whitehouse 2019](#)). In spite of this, our sliding hip screw (SHS) [run chart](#) shows a continued fall in use of SHS for more stable A1/A2 (AO Classification) types of trochanteric fracture (77.8% cf 79.3% for 2018).

Total hip replacement

[NICE CG124](#) called for appropriate patients to be offered total hip replacement (THR) after a displaced intracapsular hip fracture. In 2019 we still found huge variation between units with 6–70% of eligible patients receiving THR. Only a third (33.4%) of patients who NICE views as eligible received THR in 2019. Such patients make up less than 10% of all patients so this shortfall has a relatively small impact on KPI3, but this area remains contentious.

The HEALTH study ([HEALTH 2019](#)) randomised 1,495 independently walking over 50-year-old patients with displaced intracapsular hip fractures to THR or to hemiarthroplasty (HA). Over 24 months, THR failed to provide clinically relevant benefits for function and quality of life. A subsequent paper ([Judge 2020](#)) has recommended caution in interpreting the findings of the HEALTH study; specifically regarding the type of reoperation required, the degree of clinical improvement and the short length of follow up of 24 months.

The limited advantages of THR, and a possibly higher risk of complications, may be particularly important in regions of the world where THR is not easily accessible or is cost-prohibitive. A well performed, cemented hemiarthroplasty remains a reproducible, reliable way of treating the majority of patients presenting with a displaced intracapsular hip fracture.

The HEALTH study's findings are at odds with the evidence that underpinned [CG124](#) and are likely to play a significant part in NICE's next review of guidance on this controversial topic.

Operative care of hip fractures

In 2019, a consultant surgeon was present in the operating room for 70% of hip fracture operations (*cf.* 67% in 2018), and both orthopaedic and anaesthetic consultants were present for 62%.

Consultant surgeons must assume responsibility for the surgical care of these patients. Non-consultant surgeons should only operate unsupervised when they are clinically competent with robust systems in place to ensure that the consultant is nearby and immediately available if needed, to minimise operative time and maximise theatre efficiency.

The choice of anaesthesia remains divided with 56% of cases receiving a general anaesthetic and 45% a spinal anaesthetic (occasional cases receive both). The actual technique shows only subtle variation with the seniority of the anaesthetist (Table 4). A consultant anaesthetist was present in theatre in 85% of cases.

Senior anaesthetist Proportion of all cases in 2019	Consultant (85.4%)	SAS (8.9%)	ST3+ (5.3%)	Overall
GA + epidural anaesthesia	0.6%	0.3%	0.4%	0.6%
GA + spinal anaesthesia	4.3%	4.1%	3.9%	4.3%
GA only	50.5%	46.8%	51.1%	50.2%
SA + epidural (CSE)	1.0%	0.8%	3.3%	1.2%
SA + sedation	15.1%	18.1%	12.0%	15.2%
SA + sedation + epidural	1.1%	0.6%	0.4%	1.0%
SA only	26.8%	29.2%	28.2%	27.1%
Other	0.5%	0.2%	0.6%	0.5%
	100%	100%	100%	100%

Table 4

The proportion of people receiving a nerve block in the emergency unit or ward has increased from 36% when this was first reported in January 2017 to 57% at the end of 2019. Nerve blocks are also particularly useful in minimising need for additional opiate analgesia prior to positioning the patient for a spinal in the anaesthetic room. The proportion receiving a regional nerve block remained unchanged in 2019 at 57% of all general and 40% of all spinal anaesthetics.

Operative care of femoral fractures

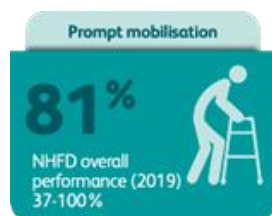
Best practice tariff (BPT) in England was due to be extended to include all patients with any femoral fracture anywhere from April 2020, and to peri-prosthetic femoral fractures in the future, so in this year's facilities survey we asked about surgical workforce provision and specific surgical expertise in hospitals. Trauma units' rotas each included an average of 12 (range 3 to 40) orthopaedic consultants, and we asked units to identify how many of these would lead or supervise the forms of surgery that would be included under the extended BPT. Over 95% would lead or supervise hemiarthroplasty for intracapsular fractures and sliding hip screw or nail fixation of trochanteric and subtrochanteric fractures.

How many consultants on your trauma rota would lead/supervise on:	
Hemiarthroplasty	98%
THR	50%
DHS for trochanteric fracture	99%
IM nail for trochanteric fracture	97%
Fixation of subtrochanteric/femoral shaft fracture	96%
Fixation of an atypical femoral fracture	84%
Fixation of an extra-articular distal femoral fracture	83%
Fixation of an intra-articular distal femoral fracture	73%
Revision arthroplasty for a peri-prosthetic fracture	30%
Fixation of a peri-prosthetic proximal femoral fracture	48%
Revision arthroplasty for a peri-prosthetic distal femoral fracture	28%
Fixation of a peri-prosthetic distal femoral fracture	55%

DHS = dynamic hip screw; IM = intramedullary; THR = total hip replacement

Table 5

Only 50% of consultants would lead or supervise a THR for hip fracture, and Table 5 shows that this will become more of an issue when BPT is extended to peri-prosthetic fractures. Only half of consultants would lead fixation of a peri-prosthetic proximal or distal femoral fracture and only 28% would lead revision arthroplasty for peri-prosthetic fracture. This clearly has workforce implications and orthopaedic leads will need to factor this in when planning trauma rotas and theatre lists to maximise opportunities for patients to receive timely surgery with the forthcoming BPT extension in mind.



Key performance

indicator 4

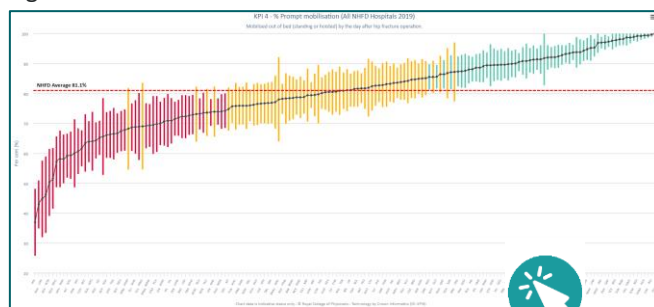
Will I be able to get out of bed by the day after my operation?

Definition: Is the patient recorded to have been able to sit or stand out of bed by the day after their operation?

Prolonged bed rest compromises the dignity of older people and those with frailty. It also increases their risk of delirium, thromboembolism, hospital-acquired infection and pressure damage, leads to loss of muscle strength and compromises their rehabilitation potential.

In 2019, rates of successfully getting patients up continued to vary hugely between units, with some reporting that all patients were able to sit or stand out of bed by the day after surgery, using a hoist if necessary.

The [KPI4 chart](#) names 49 units (28%) where performance was significantly below the national average; large numbers of patients were failing to get out of bed promptly.



The named units will wish to examine the reasons underpinning this and might like to review their staffing alongside the figures in the tables under KPI1 (page 8). However, our 2017 collaboration with the Chartered Society for Physiotherapy (CSP) in the national [Physiotherapy Hip Fracture Sprint Audit \(PHFSA\)](#) found that a failure to get up was more often due to low blood pressure, poor pain control or confusion, rather than a lack of physiotherapist input.

Ward staff should all recognise the physical, psychological and nutritional benefit of hoisting a patient so that they can enjoy a meal sitting out of bed in a chair; which is why this form of care is one way of meeting the criteria for KPI4. Such factors can only be addressed with a multidisciplinary approach, and therapists need to be part of units' routine monthly clinical governance meetings. In 2020, the NHFD introduced a new question to support such collaborative working; asking clinical teams to identify and document the main reason why an individual patient is unable to get up by the day after surgery.

Monthly governance meetings should monitor the picture that this new question will paint of constraints on KPI4 in their unit, and make this a focus for local quality improvement work.

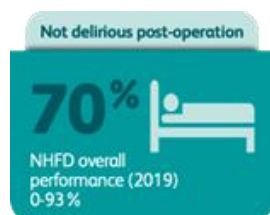
The [KPI4 chart](#) also identifies units which successfully got very large proportions of patients 'up first day', with effective joint working and collaboration between physiotherapists and the rest of the multidisciplinary team. This is something on which they must be congratulated, and teams in neighbouring units should use local networks to help them learn from and emulate this good practice.

Community rehabilitation

This year's facilities survey asked about the rehabilitation services to which teams were commonly discharging patients after hip fracture.

Individual units reported very different referral patterns, with hospital teams referring patients to anything from 0 to 20 (average = 4.2) different community rehabilitations services.

When asked about the community service to which their patients were most commonly discharged, the acute teams from 45 units (26%) reported that patients would normally be seen at home on the day of discharge, with another 54 units (32%) expecting this within 72 hours of discharge. In total, 99 units (58%) were able to meet [CSP Standard 5](#): community rehabilitation starting within 72 hours. Another 10 units (6%) would be given a specific date, beyond 72 hours, while 28 units (16%) would see their patients placed on a waiting list to be seen at home, and 31 (18%) were unclear of when patients would be seen.



Key performance

indicator 5

Will you check that I do not become confused after my operation?

Definition: Did the patient receive a 4A test (4AT) in the week after operation, that indicates that they do not develop postoperative delirium?

Delirium is the most common complication of any surgery and anaesthesia in older people, and affects a quarter of people with hip fracture ([2018 NHFD report](#)). Since 2017 the NHFD has championed the use of the 4AT ([Bellelli 2014](#)) as a quick and simple examination of the four components of delirium. This makes routine screening possible, and improves understanding of a complication that often dominates patients' hospital stays, delays recovery, and can cause huge distress to them and to their families.

In 2019, over 60,000 patients (93%) were offered a 4AT in the week after surgery for hip fracture (96% in England where this assessment is incentivised by BPT assessment, cf 62% in Wales, 46% in Northern Ireland).



Teams should examine their own figures in this [KPI5 chart](#) which identifies 24 units (14%) where performance was significantly below average.

The proportion of patients recorded as 'delirium-free' (4AT <4) varied from 0% in two units where 4AT was still not being used, to a surprisingly high figure (of around 90%) in other units. These units might wish to review how the 4AT is being performed. Recent work from Ashford and St Peter's NHS Foundation Trust has examined the effectiveness of 4AT testing on the day after surgery and shown that it independently predicts immobility, prolonged hospital stay, death in hospital and change in residence on discharge ([Lisk 2020](#)).

From January 2020, the NHFD has been asking units to record the results of 4AT in the tighter time frame of 72 hours after surgery. From next year, KPI5 will examine whether patients are shown to be free of delirium when tested in a time window that is more challenging than the 1 week currently required for BPT. We would encourage teams to use 4AT as part of a care bundle on the day after surgery so it can serve as a measure of the quality of acute perioperative care.

Screening for cognitive impairment and prevention of delirium

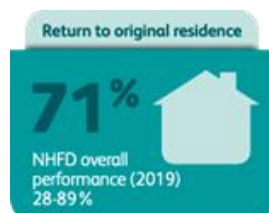
Postoperative delirium is very common among people with dementia, as well as among those noted to have cognitive impairment when they first present. For this reason, the Abbreviated Mental Test (AMT) has long been a key element of the preoperative assessment promoted by the NHFD. However, it is increasingly accepted that the 4AT provides a more useful instrument with which to assess new patients, so it is likely that the NHFD and BPT will move from use of AMT to use of 4AT next year.

Development of delirium will reflect a combination of factors as diverse as ward environment, pain control, and perioperative surgical and anaesthetic management. Delirium can be prevented through comprehensive geriatric assessment and orthogeriatric support in the time around surgery for hip fracture ([Marcantonio 2001](#)), but for some patients the severity of pre-existing dementia means that a postoperative 4AT will inevitably be abnormal. Cognitive assessment on admission can help staff to predict people likely to be affected. A number of approaches have been developed that will help ward staff anticipate these patients' needs and support them in an unfamiliar environment.

Table 6 describes the approaches that have been adopted by hip fracture teams around the country, as reported in this year's NHFD facilities survey. Teams should use local audit to ensure that such approaches are being properly used.

Approach	Hospitals
This is me	90 (53.3%)
Butterfly Scheme	32 (18.9%)
Forget me not	29 (17.2%)
Other	15 (8.9%)
Read about me	3 (1.8%)

Table 6. Approaches adopted by hip fracture teams



Key performance

indicator 6

Will you check that I get back to live in my usual home?

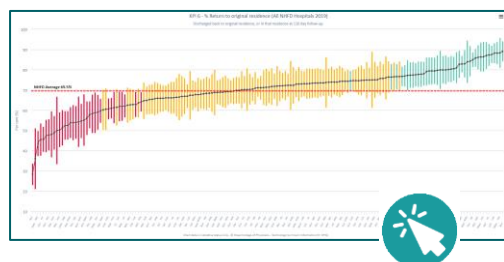
Definition: Is the patient known to have been discharged to their original home or care home, or to be there at 120-day follow up?

Different patients may have very different perspectives on how quickly they would like to be discharged from hospital following a hip fracture.

Some wish to return home as soon as possible and be reluctant to 'waste time' in hospital if they don't feel they are getting the intensive rehabilitation they need.

Others may be fearful of returning home, having lost confidence after their fall, and may need prolonged rehabilitation if they are to successfully return home. For this reason, KPI6 combines the total number of people returning directly to their original residence, with an additional figure – the number of others shown to have returned there by the time of 120-day follow up. KPI6 therefore focuses not on the length but on the outcome of rehabilitation.

While 71% of people return to their original residence after a hip fracture, in 2019 we found huge variation; from 28–89% in different units. Teams should review this [KPI6 chart](#) to see where they fit on the KPI6 caterpillar plot.



Length of stay

Compared with the figures of 15.6 days for acute length of stay (LOS) and 20 days for trust LOS we reported for 2017, there has been little change over the course of 2019, with figures of 15.2 days and 19.3 days at the end of the year (Fig 6).



Fig 6. Length of stay run-chart

Such LOS figures are taken very seriously by those organising and funding hospital care. However, the [2016 NHFD report](#) showed that a substantial part of rehabilitation is provided in community trusts and care homes. The LOS and costs associated with this are uncertain, particularly in England, where they are poorly captured even using Hospital Episode Statistics (HES) data.

In part, this reflects uncertainty about where people go when they leave the acute trust and when, or indeed whether, they actually return home or move to a new permanent residence, as discussed in KPI6.

We set out to estimate the average ‘super-spell’ (the total LOS in all hospital or rehabilitation settings for patients with hip fracture), using data from the 41 units (24%) in whom excellence of data collection and follow up meant that the date and final discharge destination were known for over 95% of all patients (Table 7).

Mean ‘super-spell’ in these units was 23.3 days, 4 days longer than the equivalent figure of 18.0 days claimed by units with less complete follow up, and perhaps a reliable indicator of the total resource implications of hip fracture care.

Unit	Super-spell (days)
HRI. Hull Royal Infirmary	12.7
PIL. Pilgrim Hospital	13.6
BFH. Broomfield Chelmsford	14.4
WMU. West Middlesex University Hospital	16.8
KMH. King’s Mill Hospital	17.1
STH. St Thomas Hospital	18.3
COL. Colchester General Hospital	18.4
QEG. Queen Elizabeth Hospital, Gateshead	18.4
SOU. Southport and Formby District General	18.6
NSE. Northumbria Specialist Emergency Care Hospital	18.6
UHC. University Hospital Coventry	18.7
HCH. County Hospital Hereford	18.9
NOB. Noble’s Hospital	19.0
WMH. Manor Hospital	19.1
STD. South Tyneside District Hospital	19.4
MKH. Milton Keynes General Hospital	20.3
GHS. Good Hope General Hospital	20.4
BLA. Royal Blackburn Hospital	21.0
SAN. Sandwell District Hospital	21.5
CRG. Craigavon Area Hospital	22.2
BRD. Bradford Royal Infirmary	22.2
SMV. Stoke Mandeville Hospital	22.5
SCM. James Cook University Hospital	22.8
RLI. Royal Lancaster Infirmary	23.3
HOM. Homerton Hospital	23.6
LER. Leicester Royal Infirmary	23.7
YDH. York District Hospital	23.8
HIN. Hinchbrook Hospital	24.5
RVN. Royal Victoria Infirmary	26.6
WWG. West Wales General	27.4
VIC. Victoria Hospital	27.8
TGA. Tameside General Hospital	29.6
CLW. Glan Clwyd Hospital	30.4
GWE. Royal Gwent Hospital	31.0
WRX. Maelor Hospital	31.0
MOR. Morriston Hospital	32.4
GWY. Ysbyty Gwynedd Hospital	32.4
WYB. Withybush General Hospital	32.4
FGH. Furness General	32.5
UHW. University Hospital of Wales	33.1
RGH. Royal Glamorgan	36.6

Table 7

This year's analysis of mortality within 30 days of hip fracture included a total of 67,302 patients from all 170 trauma units in England and Wales, and found a 30-day mortality rate of 6.5%, slightly higher than the 6.1% recorded for 2018.

Crude mortality is casemix adjusted using a validated model [Tsang et al 2017]. This model is refined each year, and [the model coefficients](#) updated to reflect changes in the data reported by units.

[illegible]

Fig 7. Casemix-adjusted funnel plot

- > It was difficult to judge whether a mortality run chart that is above the national average is significantly abnormal for a unit of any particular size.
- > Some units provided poor quality data and were identified as outliers in spite of normal crude mortality because their data implied a surprisingly fit population in which so many deaths should not have been seen.

To avoid these problems, we have developed a completely new approach to outlier analysis; allowing units to monitor casemix-adjusted mortality in real time. Our new casemix-adjusted mortality run charts will be updated quarterly, and will run a few months in arrears to allow linkage to validated Civil Registration Data on mortality (the equivalent of Office of National Statistics data we used in the past).

● Crude mortality (annualised)
 ■ Upper control limit 95% (+2SD)
 ■ Lower control limit 95% (-2SD)
 ■ Casemix adjusted mortality (annualised)
 ■ National Average
 ■ Upper control limit 99% (+3SD)
 ■ Lower control limit 99% (-3SD)

Fig 8. 30-day mortality run chart

Each quarter, the NHFD will identify all those hospitals in which mortality over the preceding calendar year is above the upper 99.8% (3SD) control limit.

- The NHFD [outlier policy](#) explains how such findings are shared with local teams, chief executives, medical directors, the CQC and the Welsh Government. Where there is an indication of poor performance we recommend sites consider a BOA peer review.

Outliers for casemix-adjusted 30-day mortality in 2019

Last year's annual report identified eight units as outliers for mortality in 2018. All of these have improved since 2018, but two of them were still 'outliers' with casemix-adjusted 30-day mortality that remained above the upper 99.8% ($\approx 3SD$) control limit throughout 2019.

County Hospital Hereford reported high crude mortality at 9.2% in 2018 and this remained high at 10.6% at the end of 2019. Poor-quality data for ASA grade and previous mobility exacerbated this; giving an adjusted figure of 12.1% that was above the upper 99.8% limit. Hull Royal Infirmary reported a crude mortality of 8.9% in 2019. A failure to report ASA grades for a quarter of patients meant that their 10.1% casemix-adjusted figure was above the 99.8% limit.



Fig 9. Casemix adjusted mortality run charts for outliers

Both of these units were contacted by the NHFD, supported to review their data, and advised on how they should respond to their 'outlier' status. It is very encouraging to see that both have since shown marked improvements in casemix-adjusted mortality (Fig 9). Clinical staff in two other units have been notified that their casemix-adjusted mortality figures moved above the upper 99.8% limit for the first time in the last quarter of 2019, and staff in 11 other units have been made aware their casemix-adjusted mortality was above the upper 95% ($\approx 2SD$) limit.

We have congratulated staff in 16 other units where mortality was lower than usual; falling below the lower 95% limit. The [casemix-adjusted mortality run charts](#) are all available on the NHFD website, so teams, health service managers and organisations such as the CQC can all use them.

Data quality

These findings highlight the importance of data quality if units are to make the best possible use of the NHFD as a platform to support local quality improvement. The new run charts may help units to identify problems with the completeness and accuracy of their data. The presence of such factors will be highlighted if units see a large discrepancy between their crude and casemix-adjusted mortality run charts. Such findings should encourage teams to review their data quality.

Clinical leads in each hospital are responsible for the quality of the data they submit to the NHFD, and in reviewing this they will need to consider three aspects:

- > **Case ascertainment:** The NHFD typically receives data on more cases than are captured by HES and PEDW, so these sources cannot be viewed as a 'gold standard'. Instead the NHFD comments on submissions in previous years, so units can consider whether these might indicate any shortfall in data entry in the current year. For the 2020 report, this will be the number of patients submitted in 2019 compared with the number submitted in 2018.
- > **Data completeness:** Missing data can compromise a hospital's benchmarking data and their income from best practice tariff. Missing casemix data may also affect the adjustment model used during our mortality analysis and potentially lead to a hospital unnecessarily triggering an 'alarm' in respect of their mortality outlier status.
- > **Data accuracy:** Inaccurate coding of data can have similar effects to those mentioned above, resulting in miscoding that falsely portrays a unit as having a population that is healthier than normal. This can unnecessarily trigger an 'alarm' in respect of their mortality outlier status.

Casemix factors such as age and sex have a profound effect on mortality. Other factors such as fracture type, anaesthetic grade, pre-fracture mobility and residence are not so reliably recorded, and poor-quality data still led to several units appearing as outliers as a result of data that suggested an unusually healthy population.

Our [theatre data capture sheet](#) is designed to help staff ensure the quality of key casemix data, but some units still reported improbably high numbers of patients as ASA grades 1 or 2.

Secondary prevention

Recent years have seen a slight reduction in the use of oral bone protection, both among patients admitted with hip fracture, and as secondary prevention started during their stay, in part reflecting increased use of injectable treatments (Table 8).

Secondary prevention actions taken	2016	2019
Assessed but no bone protection medication needed or appropriate	21.6%	22.7%
Oral medication – continued from pre-admission	7.3%	6.0%
– started on this admission	42.4%	37.5%
Injectable medication – continued from pre-admission	0.9%	1.2%
– started on this admission	7.4%	10.8%
No treatment, pending DXA scan or bone clinic assessment	17.4%	18.4%
No assessment or no action taken	2.9%	3.3%

Table 8

However, there remains huge variation in the approach taken, with Fig 10 showing the proportion of people receiving injectable treatments when discharged after hip fracture to varying from none to two thirds. The figures for different units around the country are given in this [link](#).

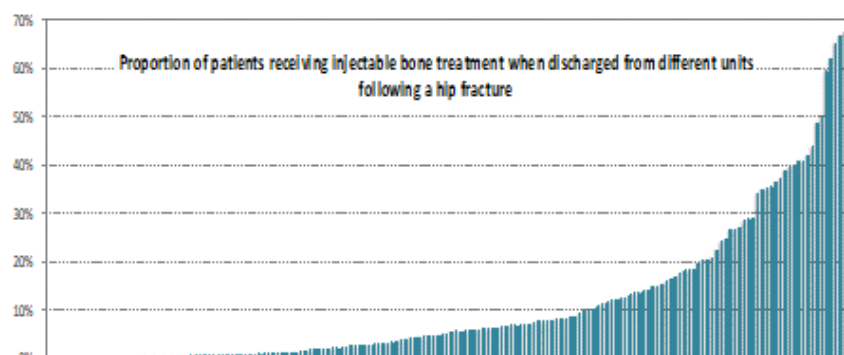


Fig 10. Proportion of patients receiving injectable bone treatment when discharged from different units following a hip fracture



In 2019 our approach to recording bone treatment did not capture actual drugs or how these change between admission, discharge and follow-up.

From 2020 we have improved the coding of different types of bone protection in a way that corresponds to that used by our sister audit the [Fracture Liaison Service Database \(FLS-DB\)](#) and will avoid duplication of data entry for the two audits.

Secondary prevention remains one of the great successes of hip fracture care that the NHFD has helped to catalyse since 2007, with 97% of all patients now being assessed for appropriate bone strengthening medication.

However, follow up of patients to support the continued use of appropriate bone protection is vital. In this year's NHFD facilities survey just half (54%) of units told us that they were doing this, using a range of different approaches (Table 9). The [FLS-DB report](#) will be a key resource for those who provide such support.

Approach to 120-day follow up after a hip fracture	2019
By a combination of letter or telephone call	11%
By letter	5%
By telephone	44%
Routine, but at another time point within 6 months	1%
Not undertaken for most patients	29%
Routine orthogeriatric outpatient follow-up of most patients	2%
Routine orthopaedic outpatient follow-up of most patients	3%

Table 9

Recommendations

Future participation in NAIF

1. Ensure your trust or health board participates in NAIF by registering and providing facilities data.
2. Confirm the type of ward where the hip fracture occurred with the relevant trust or health board manager before submitting each case to NAIF.

Policies and procedures

3. Provide walking aids to all newly admitted patients who require one, with appropriate assessment being made available 7 days a week (CQUIN CCG7).
4. **Do not** use screening tools to identify those at high risk of falls. Instead everyone aged over 65, and others aged over 50 who may be at higher risk, should be offered a multi-factorial falls risk assessment (MFRA) (NICE CG161).

Leadership

5. All trusts and health boards should have a safety patient group which:
 - ☐ includes falls prevention in its remit
 - ☐ is overseen by a member of the executive and non-executive team
 - ☐ regularly reviews data on falls, harm and deaths per 1,000 occupied bed days
 - ☐ assesses the success of their practice against the trends in falls, harm and death rates per 1,000 OBDs
 - ☐ reports and discusses the above outcomes with the board.

Quality and safety assurance

6. Report all inpatient falls resulting in hip fracture as 'severe harm', regardless of circumstances and outcome, as recommended by the National Reporting and Learning System (NRLS).
7. Ascertain the gap between the number of reported falls and actual falls as an indicator of each trust and health board's reporting culture, to help interpretation of data on falls per 1,000 occupied bed days.

Care after an inpatient fall

8. Check older people who fall during a hospital stay for signs or symptoms of fracture and potential for spinal injury before they are moved (NICE QS 86).
9. Ensure that flat lifting equipment is available on all sites and is always used to move patients when a hip fracture is suspected, in order to avoid causing pain and/or further injury (NICE QS 86).
10. Include safe manual handling methods in a post-fall protocol that is followed for all people who fall during a hospital stay. Document the handling method used in the patient's records (NICE QS 86).
11. Assessment by a medically qualified professional should take place within 30 minutes of a fall where serious injury is suspected (NICE QS 86). In sites without access to medical cover, transfer to an emergency department should be arranged within 30 minutes (NICE QS 86).
12. Commence hip fracture management without delay. This may require the development of local policies that ensure expedited care for those who sustain a hip fracture following a fall in hospital.

Spotlight on inpatient falls

In 2018, we redesigned our third audit the [National Audit of Inpatient Falls \(NAIF\)](#).

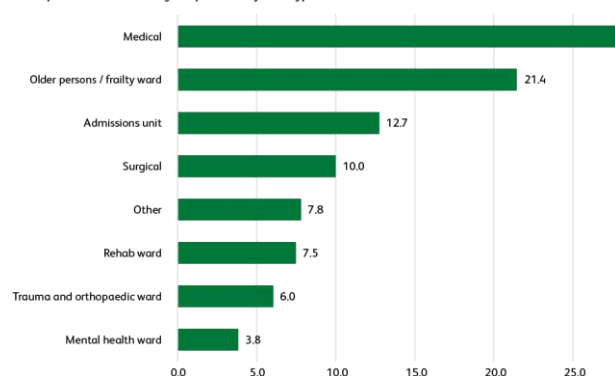


This now focuses on people who the NHFD identifies as having sustained a hip or femoral fracture after falling in any inpatient setting: acute hospitals, mental health units and community hospitals.

[The first report](#) was published in March 2020 (see page left for recommendations) and shows that the people who fall and fracture their hip in hospital are the 'oldest old' and the 'frailest frail'.

It challenges ideas about where injurious falls occur, with only 21% occurring in elderly care wards – showing that it is essential for all specialties caring for older people to be fully signed up to falls prevention.

Proportion of falls resulting in hip fracture by ward type where fracture occurred



The NAIF report examines fall prevention and looks at how well and how quickly people are looked after following an inpatient fall.

Mortality at 30 days is twice as high if a hip fracture follows an inpatient fall, compared with people who present to the emergency unit after a fall in the community.

Some of this variation may be explained by inadequate post-fall management and delayed access to hip fracture care.

However, analysis of NHFD data indicates shows that inpatient fallers receive poorer care as measured using the NHFD's six KPIs, with delay in surgery and getting out of bed afterwards, more delirium and longer length of stay.

NAIF's future work will focus on development of a learning culture; establishing reliable records of events, to ensure that every time someone falls the hospital team takes the opportunity to use the investigation of the event to prevent future inpatient falls.

National Hip Fracture Database report

Citation for this report: Royal College of Physicians *The challenge of the next decade: are hip fracture services ready? A review of data from the National Hip Fracture Database (January–December 2019)*. London: RCP, 2021.

This report was prepared by the National Hip Fracture Database team:

Lara Amusan, FFFAP programme manager

Tim Bunning, Crown Informatics

Elizabeth Fagan, FFFAP project manager

Elinor Davies, FFFAP project manager

Sam Hawley, epidemiologist and statistician, University of Oxford

Dominic Inman, NHFD clinical lead, orthopaedic surgery

Antony Johansen, NHFD clinical lead, orthogeriatrics

Andrew Judge, professor and senior statistician, University of Oxford

Rasnaam Tiwana, FFFAP senior programme coordinator

Data analysis was performed by the Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford www.ndorms.ox.ac.uk

NHFD data collection webtool and performance tables are provided by Crown Informatics www.crowninformatics.com

Falls and Fragility Fracture Audit Programme

The NHFD is run by the Care Quality Improvement Department (CQID) of the Royal College of Physicians (RCP). It is part of the Falls and Fragility Fracture Audit Programme (FFFAP); one of three workstreams alongside the Fracture Liaison Service Database (FLS-DB) and National Audit of Inpatient Falls (NAIF). The programme is commissioned by the Healthcare Quality Improvement Partnership (HQIP) and works within a governance structure that includes the Programme's Board, Advisory Group and Patient and Carer Panel.

Healthcare Quality Improvement Partnership

The National Hip Fracture Database is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP). HQIP is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing and National Voices. Its aim is to promote quality improvement in patient outcomes, and to increase the impact of clinical audit, outcome review programmes and registries on healthcare quality in England and Wales. HQIP commissions, manages and develops the National Clinical Audit and Patient Outcomes Programme (NCAPOP), comprising around 40 projects covering care provided to people with a wide range of medical, surgical and mental health conditions. The programme is funded by NHS England, the Welsh Government and, with some individual projects, other devolved administrations and crown dependencies www.hqip.org.uk/national-programmes

The Royal College of Physicians

The Royal College of Physicians is a registered charity that aims to ensure high-quality care for patients by promoting the highest standards of medical practice. It provides and sets standards in clinical practice, education and training, conducts assessments and examinations, quality assures external audit programmes, supports doctors in their practice of medicine, and advises the government, the public and the profession on healthcare issues.

The Captain Tom Foundation

Captain Sir Tom Moore has always been active, even driving every day until he slipped and fractured his hip two years ago. The care and after-treatment he received then, and earlier through a cancer scare, left him eternally grateful to so many people in the NHS.

The initial plan was to do 100 laps of his garden before his 100th birthday, hoping to raise £1,000 for NHS charities. Over £32 million later, Tom has inspired a whole nation.

'You are all entering into something where you are putting yourself in danger and you're doing that for the good of the people here. You are doing a marvellous, marvellous job.'

We would like to thank Captain Sir Tom Moore for his support for the National Hip fracture Database and its aims to drive up the standards of care for hip fracture sufferers like himself. He is a shining example of what can be achieved after breaking a hip and is in many ways a symbol of the inspirational resilience of multidisciplinary teams across the country at this challenging time. As he says himself: *'We have to keep on going.'*

www.captaintom.org

Registered Charity No. 1189808

Copyright

All rights reserved. Applications for the copyright owner's written permission to reproduce significant parts of this publication (including photocopying or storing it in any medium by electronic means and whether or not transiently or incidentally to some other use of this publication) should be addressed to the publisher. Brief extracts from this publication may be reproduced without the written permission of the copyright owner, provided that the source is fully acknowledged.

Copyright © Healthcare Quality Improvement Partnership 2021

ISBN 978-1-86016-817-8

eISBN 978-1-86016-818-5

Get in touch

For further information please contact us – we want to hear from you.



www.nhfd.co.uk



nhfd@rcplondon.ac.uk



[@RCP_FFFAP](https://twitter.com/RCP_FFFAP)

Royal College of Physicians

11 St Andrews Place,

London NW1 4LE

www.rcplondon.ac.uk

Registered Charity No. 210508