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Briefing paper

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Introduction

This briefing paper presents a structured review of draft indicator statements. These indicator statements have been derived either from the NICE quality standard on hip fracture or from other sources, for example, relevant indicators in the NHS operating framework. For the purposes of this paper, an indicator statement is defined as a high level statement which, with development and testing, can be used to specify a potential quality indicator for use in the COF.

This briefing paper is intended to help inform and guide the selection of indicator statements by the COF Advisory Committee for indicator development.

Structure of the briefing paper

This briefing paper includes 7 sections. These sections address the requirements of the selection criteria for potential COF indicators as outlined in the COF process guide.

Section 1 presents an overview of the NICE quality standard on hip fracture and its link to the NHS outcomes framework.

Section 2 presents a brief definition and epidemiological summary of hip fracture and its clinical management.

Section 3 presents the quality statements as presented in the published quality standard alongside the developed indicator statements. This section also includes:

- an evidence summary for the proposed indicator statement
- a brief overview of current clinical practice including, where data is available, current baseline and any variation in practice
- indicator development issues, including a feasibility assessment carried out in collaboration with the Health and Social Care Information Centre (HSCIC).
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Section 4 presents outcome indicator statements, and in some cases additional process indicator statements, that the COF indicator hip fracture Review Group considered would reflect the provision of high quality care as defined in the Quality Standard as a whole.

Section 5 presents a supporting statement by the Chair of the COF indicator hip fracture Review Group for consideration by the COF Advisory Committee.

Section 6 presents indicators identified from other sources, with an assessment against pre-defined criteria.

Section 7 presents an initial technical feasibility assessment of COF the draft indicator statements.
Section 1 Overview

Background

The proposed indicator statements presented in this briefing paper have been identified in three ways:

- from the NICE quality standard for hip fracture, published 2012:
  NICE quality standard for hip fracture. Available from:  
  http://www.nice.org.uk/guidance/qualitystandards/hipfracture/home.jsp
- by the COF indicator hip fracture Review Group
- from other sources

The scope of the quality standard covers the management and secondary prevention of hip fracture in adults.

The proposed indicator statements included in this briefing paper relate to healthcare processes or outcomes that can be influenced, at least in part, by the actions of Clinical Commissioning Groups (for example through decisions on which services to commission, the setting of contracts and the monitoring of the quality of services commissioned and the performance of providers).

NHS priorities

The quality standard for hip fracture, from which some of the proposed indicator statements presented in this report are derived, describes markers of high-quality care that, when delivered collectively, should contribute to improving the effectiveness, safety and experience of care for people with hip fracture in the following ways [Department of Health, 2010b]:

- enhancing quality of life for people with long-term conditions
- helping people to recover from episodes of ill health, or following injury
- ensuring that people have a positive experience of care
- treating and caring for people in a safe environment and protecting them from avoidable harm.
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Relevant overarching indicators

1a Potential Years of Life Lost (PYLL) from causes considered amenable to healthcare

1b Life expectancy at 75

3b Emergency readmissions within 30 days of discharge from hospital

4b Patient experience of hospital care

5a Patient safety incidents reported

5b Patient safety incidents involving severe harm or death

Relevant improvement areas

Improving outcomes from planned procedures

3.1 Patient Reported Outcomes Measures (PROMs) for elective procedures i Hip replacement

Improving recovery from fragility fractures

3.5 The proportion of patients recovering to their previous levels of mobility / walking ability at i 30 and ii 120 days

Helping older people to recover their independence after illness or injury

3.6 Proportion of older people (65 and over) who were i still at home 91 days after discharge into rehabilitation *** ii offered rehabilitation following discharge from acute or community hospital ***

Improving people’s experience of outpatient care

4.1 Patient experience of outpatient services

Improving hospitals’ responsiveness to personal needs

4.2 Responsiveness to in-patients’ personal needs
Improving the experience of care for people at the end of their lives

4.6 An indicator to be derived from the survey of bereaved carers

Improving experience of healthcare for people with mental illness

4.7 Patient experience of community mental health services

Improving people’s experience of accident and emergency services

4.3 Patient experience of A&E services

Reducing the incidence of avoidable harm

5.1 Incidence of hospital-related venous thromboembolism (VTE)

5.2 Incidence of healthcare associated infection (HCAI) i MRSA ii C. difficile

5.3 Incidence of newly-acquired category 2, 3 and 4 pressure ulcers

5.4 Incidence of medication errors causing serious harm
Section 2 Definition, epidemiological summary and clinical management

**Definition of hip fracture**

Hip fracture is the plain English term for a proximal femoral fracture. It is the most common reason for admission to an orthopaedic trauma ward, usually for a ‘fragility’ fracture caused by a fall affecting an older person with osteoporosis or osteopaenia (conditions in which bones lose calcium and become thinner). Hip fracture is a major public health issue because of an increasing ageing population.

The National Hip Fracture Database reports the average age of a person with hip fracture as 84 years for men and 83 for women, and shows that 76% of fractures occur in women. Mortality is high - about one in ten people with a hip fracture die within 1 month and about one in three within 12 months. Most of the deaths are a result of associated comorbidities and not the fracture itself, reflecting the high prevalence of comorbidity in people with hip fracture. A fall and fracture often signals underlying ill health.

**Incidence and prevalence**

About 70,000 to 75,000 hip fractures (proximal femoral fractures) occur annually in the UK, with a cost (including medical and social care) amounting to around £2 billion a year. Demographic projections indicate that the UK annual incidence will rise to 91,500 by 2015 and 101,000 in 2020, with an associated increase in annual expenditure. Most of this expenditure will be accounted for by hospital bed days and a further substantial contribution will come from health and social aftercare. At present about a quarter of patients with hip fracture are admitted from institutional care, and about 10-20% of those admitted from home ultimately move to institutional care.

**Management**

Hip fracture management includes admission to secondary care through to final return to the community and discharge from specific follow-up, and
secondary prevention. Anyone clinically suspected of having a hip fracture will normally be referred for immediate hospital assessment.

The diagnosis of hip fracture is easily missed and in a small minority of patients the fracture may not be apparent on a plain X-ray.

In general it is the case that suboptimal care and/or fragmentation of care result in longer periods of dependency and/or hospitalisation leading to greater cost as well as inferior outcome. There is substantial variation and lack of clarity in the UK in the extent, timing, manner and organisation of the necessary collaborative and multidisciplinary elements of effective management, including the timely achievement of rehabilitation after surgery according to individual need. A further concern is the occurrence of delay before necessary surgery is carried out. Prompt surgery has been generally recognised to be important, but surgery is sometimes delayed for administrative or clinical reasons. Emerging evidence from the National Hip Fracture Database indicates substantial variation across centres in England and Wales in this and other indicators of clinical and service quality.

Management of hip fracture has improved through the research and reporting of key skills, especially by collaborative teams specialising in the care of older people (using the general designation 'orthogeriatrics').
Section 3 Proposed indicator statements: quality standard on hip fracture

A total of 23 indicator statements developed from the NICE quality standard for hip fracture (NICE, 2012) have been identified as appropriate by the COF indicator hip fracture Review Group for consideration by the COF advisory committee. A further 8 overarching outcome indicators have been identified.

These indicator statements have been rated valid by the COF indicator hip fracture Review Group. As part of the selection of indicator statements, the Review Group may have rated indicators low where they considered indicators to be low priority or not feasible. These are therefore not presented in this document.

It is expected that some of the concepts and timeframes within the indicator may require further clarification as part of the indicator development process.

Square brackets have been used to denote concepts within the indicator statement wording where further clarification may be required. For example,

Of people with hip fracture, the proportion receiving recorded [preoperative] cognitive assessment and measurement using a [validated tool].

The COF indicator hip fracture Review Group has advised that these concepts can be clarified.

The clinical and cost effectiveness evidence summaries presented in this section are based on the following source(s):

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QS01  Hip Fracture Programme

NICE quality standard statement

People with hip fracture are offered a formal Hip Fracture Programme from admission.

Proposed indicator(s) relevant to the quality statement

HFra01 – Of people with hip fracture, the proportion who receive a [formal Hip Fracture Programme] from admission [evidenced as having a [joint acute care protocol] at admission, and [evidence of MDT rehabilitation] agreed with a [named responsible orthogeriatrician and orthopaedic surgeon, with GMC numbers recorded]].

Assessment against prioritisation criteria

Discussion of clinical and cost-effectiveness evidence

CG124 recommendation 1.8.1

The evidence for this recommendation has two elements which were combined due to overlaps: hospital based multidisciplinary rehabilitation (MDR); and orthogeriatric involvement in the whole pathway of care. The evidence overlapped as the studies analysed for hospital based MDR included orthogeriatric input.

For MDR, ‘usual care’ was compared to two general subtypes of orthogeriatric care:

• Hip Fracture Programme (HFP)

• Geriatric Orthopaedic Rehabilitation Unit (GORU), or near equivalents such as a Mixed Assessment and Rehabilitation Unit (MARU).

‘Usual care’ was used as the comparator as no studies were available which directly compared the two models. 11 randomised controlled trials met the inclusion criteria for hospital multidisciplinary management versus usual care,
with a total of 2,214 patients. The impact of early geriatrician involvement (central to the HFP model but not GORU/MARU) was inferred from differences when each was compared to ‘usual care’. The studies found that there was a statistically and clinically significant improvement in several areas including functional outcomes at one year (moderate quality) and mortality at discharge (low quality) with HFP compared to usual care.

Both HFP and GORU/MARU proved markedly more cost-effective than usual care, although HFP emerged as the dominant strategy.

The HFP approach is also preferable because of its provision of a more extensive programme of multidisciplinary care that:

- supports admission assessment and peri-operative care, in addition to rehabilitation, discharge planning and follow-up
- addresses the needs of all patients, including those who might be viewed as inappropriate for a GORU/MARU (because of ongoing orthopaedic, medical or psychiatric problems)
- provides a coordinated multidisciplinary structure that will support other recommendations in this guideline (e.g. early operation).

**Current clinical practice including evidence of variation**

The Royal College of Physicians’ [National audit of falls and bone health](https://www.rcplondon.ac.uk/projects/audit-prospective) shows that 72% of providers report having a protocol for early orthogeriatric input, however only 52% of patients were seen for a specialist medical assessment by a geriatrician within 72 hours of admission.

The [National Hip Fracture Database (NHFD) 2011 national report](https://www.hipfracturedatabase.org/Resources) shows that 37% of patients have a routine review by a geriatrician before surgery, up from 31% in 2010. 14% of hospitals still have no orthogeriatric input.
Indicator development issues

Feasibility assessment

[2] This indicator is available from existing data sources given amendments to the collection (e.g. a new data field).

Other issues

NHFD does not collect names of orthogeriatrician or surgeon; if the word "named" was deleted this would increase the feasibility assessment to a level 1. The TEG chair would be happy to do this.
QS02  Continuity of clinical and service governance

NICE quality standard statement
The Hip Fracture Programme team retains a comprehensive and continuing clinical and service governance lead for all stages of the pathway of care, including the policies and criteria for both intermediate care and early supported discharge.

Proposed indicator(s) relevant to the quality statement
HFra03 – Of people with hip fracture transferred from hospital for early supported discharge or intermediate care, the proportion for whom the [Hip Fracture Programme team] makes (and documents the objectives of) the decision to transfer, with a plan for follow-up.

Assessment against prioritisation criteria
Discussion of clinical and cost-effectiveness evidence
Please see the evidence above for quality statement 1.

Current clinical practice including evidence of variation
Please see the evidence above for quality statement 1.

Indicator development issues
Feasibility assessment
[2] This indicator is available from existing data sources given amendments to the collection (e.g. a new data field).

Other issues
NHFD does not collect data regarding transfer documentation or details of early supported discharge; collection of this indicator would require multiple new fields.

Both HFra01 (above) and HFra03 are related to the Hip Fracture Programme (HFP). If HFra01 were fully implemented, it would negate the need for HFra03, however the TEG had doubts that this would be the case.
immediately as there is currently a widespread problem of discontinuity (and cost-ineffectiveness) associated with care being provided in a manner which is inconsistent to the HFP model. This indicator is therefore important to ensure the implementation of the HFP.
QS03  Cognitive assessment

NICE quality standard statement

People with hip fracture have their cognitive status assessed, measured and recorded from admission.

Proposed indicator(s) relevant to the quality statement

HFra05 – Of people with hip fracture, the proportion receiving recorded [preoperative] cognitive assessment and measurement using a [validated tool].

HFra06 – Of people with hip fracture, the proportion who have undergone surgery receiving a recorded [postoperative] cognitive assessment and measurement using a [validated tool].

Assessment against prioritisation criteria

Discussion of clinical and cost-effectiveness evidence

The evidence for this QS was taken from two separate guidelines, primarily NICE CG124 (hip fracture) and to a lesser extent CG103 (delirium).

Patients with memory problems make up a substantial proportion of admissions, and face increased risk of delirium, medical complications, mortality, prolonged length of stay, and failure to return to pre-fracture independence. For the studies analysed in CG124, patients with cognitive impairment were usually a group excluded from studies. The two studies which specifically analysed this subgroup were of moderate quality.

One low quality study found that there was a statistically significant, but not clinically significant, reduction in severe delirium with hospital based MDR.

The potential benefits include avoidance of the distress that delirium causes to patients, their family, carers, and other inpatients, along with avoidance of the persistent reduction in cognitive function that can follow an episode of delirium, and of the increased length of stay and mortality associated with delirium.
The avoidance and management of delirium in patients with hip fracture is specifically addressed in the NICE Guideline on Delirium (CG103). The decision model from the NICE guideline on Delirium found that the tailored multi-component intervention package was cost-effective for hip fracture patients (£8,000 per QALY gained), as this care would lead to a reduced risk of long-term institutional care placement, lower incidence of other medical complications and lower length of hospital stay for these patients.

Please see quality statement 1 for additional clinical and cost effectiveness evidence on the HFP.

**Current clinical practice including evidence of variation**

The Royal College of Physicians’ [National audit of falls and bone health](#) shows that only 28% of patients received a formal assessment of cognitive function within 72 hours of surgery.

The [NHFD 2011 national report](#) concludes that hospitals should endeavour to increase the number of records in which this field is completed, as it is only available for 56.9% of patients. Where it has been recorded 31% of patients score less than 6/10, indicating significant impairment. The [NHFD 2011 national report](#) concludes that hospitals should endeavour to increase the number of records in which this field is completed (NHFD, 2011).

**Indicator development issues**

**Feasibility assessment**

[1] These indicators are available from existing data.

**Other issues**

The key clinical issue for this indicator is delirium awareness from the point of admission. Collected via the Abbreviated Mental Test Score (AMTS) in the NHFD.
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QS04  Analgesia

NICE quality standard statement
People with hip fracture receive prompt and effective pain management, in a manner that takes into account the hierarchy of pain management drugs, throughout their hospital stay.

Proposed indicator(s) relevant to the quality statement

HFra07 – Of people with hip fracture, the proportion who receive a [formal, recorded pain assessment] within 60 minutes of admission to the emergency department and within 30 minutes of initial analgesic administration

HFra08 – Of people with hip fracture who receive analgesia, the proportion who are prescribed paracetamol as first-line analgesia on admission to the emergency department and at least every 6 hours [preoperatively], unless contraindicated

HFra09 – Of people with hip fracture, the proportion who are prescribed paracetamol at least every 6 hours [postoperatively] for a minimum of 5 days

Assessment against prioritisation criteria

Discussion of clinical and cost-effectiveness evidence
This group of patients is most commonly elderly and frail and pain is one of the main physiological and psychological stresses they face. Repeated use of opioids may cause dependence and tolerance. While this should be borne in mind, it should not deter the achievement of effective pain relief in the acute situation of hip fracture. Therefore the statement and measures attempt to ensure people progress from non-opioids to stronger drugs if required.

The recommendations on pain assessment and immediate administration are based on consensus, and the additional costs linked with the staff time or immediate analgesia required for regular pain assessment are likely to be offset by the beneficial outcomes of ensuring adequate analgesia and improvements in patients’ wellbeing.
Current clinical practice including evidence of variation

The Royal College of Physicians’ National audit of falls and bone health showed that 1 in 3 patients do not receive adequate pain relief within 60 minutes of hospital attendance, or prior to attendance by ambulance personnel. 56% of patients were assessed for pain using a pain score, but it should be noted that this is of limited benefit as, even if not in pain at rest, nearly all hip fracture patients will experience incident pain on moving, e.g. for X-ray or onto a bed pan to pass urine.

Indicator development issues

Feasibility assessment

[2] These indicators are available from existing data sources given amendments to the collection (e.g. a new data field).
QS05  Timing of surgery

NICE quality standard statement

People with hip fracture have surgery on the day of, or the day after, admission.

Proposed indicator(s) relevant to the quality statement

HFra10 – Of people with hip fracture, the proportion who receive surgery [on the day of, or the day after], admission.

Assessment against prioritisation criteria

Discussion of clinical and cost-effectiveness evidence

As it would be unethical to enforce an unnecessary delay for patients sustaining fractures of the proximal femur, all studies reported are retrospective cohort studies. As such the level and quality of the evidence is poor.

10 studies met the inclusion criteria for the question of clinical and cost effectiveness of early surgery (within 24, 32 or 46 hours) on the incidence of complications, with a total of 193,793 participants. Although low quality, in aggregate the evidence supports the avoidance of surgical delay.

A delay up to 36 hours allows for appropriate assessment and planning. It allows patients to be operated on in planned trauma lists and should allow most hospitals to cope with peaks in emergency admissions.

Although the range of studies utilised a range of arbitrary or pragmatic time thresholds (governed to some degree by service context and organisation), there was no definitive cut-off point (up to and including 24 hours) beyond which further reduction of delay ceased to confer measurable benefit in one or more outcomes. Therefore the GDG considered it could not be prescriptive about the precise time threshold from the literature alone.

The potential costs of reducing delay to surgery were recognised- such as additional theatre time, out-of-hours staffing (including senior staff), out of-
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hours lists and planned trauma lists. These costs will be at least partially offset by potential savings from reduced length of stay, reduced complications and enhanced return to independent living.

No definitive health economic studies for time thresholds were identified in the literature, and CG124 constructed an original decision model, which showed that investing to add extra operating lists in order to undertake surgery within 48 hours from admission is only marginally above the £20k/QALYs threshold in the first year of implementation, but becomes clearly cost-effective in the following years. Furthermore, the implementation of extra operating lists will also achieve a more equitable distribution of health care resources in favour of patients that had previously been made to wait for surgery as other cases were given higher priority.

Current clinical practice including evidence of variation

The NHFD 2011 national report shows that currently 62% of people with hip fracture have surgery within 36 hours of admission, 34% after 36 hours, and 3% have no operation performed (and 0.8% unknown). The range for individual hospitals is from 9% to 88%, showing considerable variation.

6% of patients are still waiting 96 hours or more for surgery, not all of whom were delayed for medical reasons (The Royal College of Physicians’ National audit of falls and bone health).

Indicator development issues

Feasibility assessment

[1] This indicator is available from existing data.

Other issues

This could be collected either via the NHFD or Hospital Episode Statistics (HES). For those admitted to hospital HES can identify their date of surgery (but not the time). HES can also identify whether the admission was elective or emergency. Before HES can be considered a suitable source, some clarification needs to be given to the admission type desired for the indicator.
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QS06 Planning the theatre team

NICE quality standard statement

People with hip fracture have their surgery scheduled on a planned trauma list, with consultant or senior staff supervision.

Proposed indicator(s) relevant to the quality statement

HFra11 – Of people with hip fracture, the proportion who receive surgery on a [planned trauma list].

HFra12 – Of people with hip fracture, the proportion who receive surgery from an [appropriately senior team] who have completed the WHO checklist team briefing.

Assessment against prioritisation criteria

Discussion of clinical and cost-effectiveness evidence

No RCTs were identified evaluating a planned trauma list and this is consensus based. Evidence is extrapolated from the surgeon seniority data. This shows a significantly higher reoperation rate with unsupervised/junior orthopaedic surgeons with less than 3 years experience than senior more experienced surgeons. There was no statistically significant difference in dislocation rates. No other outcomes were reported.

No studies were identified on the cost-effectiveness of junior/less senior surgeon vs. senior surgeon. Higher grade surgeons or those with more experience are likely to be entitled to a higher wage than junior surgeons. However, as their rate of re-operations is statistically significantly lower, having hip fracture patients operated on by experienced surgeons will plausibly result in cost savings and improved health outcomes. In addition, it was felt experienced surgeons use theatre time more efficiently allowing greater throughput of cases.
Current clinical practice including evidence of variation

It is recommended that hip fractures are operated on by senior surgeons and anaesthetists (consultants or non-consultant career grades). The Royal College of Physicians’ [National audit of falls and bone health](#) shows that 51% of patients were operated on by consultant surgeons with a further 20% by non consultant career grades. The rate of senior surgeons has gone down since 2007, when 83% of operations had a senior present. 61% of patients had anaesthetic input by a consultant, with a further 17% from a non-consultant career grade. This is unchanged since 2007.

The Royal College of Physicians’ [National audit of falls and bone health](#) also reports findings from the 2010 National Confidential Enquiry into Patient Outcome and Death (NCEPOD), which reviewed the care of older (aged 80+) surgical patients and found a lack of clear guidance on the appropriate level of input into the pre- and peri-operative care of hip fracture patients (The Royal College of Physicians’ [National audit of falls and bone health](#)).

The [NHFD 2011 national report](#) shows the proportion of patients having surgery during normal working hours (within a stated time period of 48 hours) is 86%.

**Indicator development issues**

**Feasibility assessment**

[2] These indicators are available from existing data sources given amendments to the collection (e.g. a new data field)

**Other issues**

For HFra11 This would require a single additional field, as NHFD only records ‘within normal working hours’. Alternatively this may be able to be provided from existing data within HES.
QS07  Intracapsular fracture

NICE quality standard statement

People with displaced intracapsular fracture receive cemented arthroplasty, with the offer of total hip replacement if clinically eligible.

Proposed indicator(s) relevant to the quality statement

HFra13 – Of people with displaced intracapsular fracture, the proportion who receive cemented arthroplasty.

HFra14 – Of people with displaced intracapsular fracture and [clinically eligible] for a total hip replacement, the proportion who are [offered] total hip replacement.

Assessment against prioritisation criteria

Discussion of clinical and cost-effectiveness evidence

The studies looked at the clinical and cost effectiveness of both hemiarthroplasty and total hip replacement compared to internal fixation.

For hemiarthroplasty, one systematic review was identified and one additional RCT. Overall, there were 13 RCTs with 2195 participants of very low to moderate quality. Only one economic study was included.

For total hip replacement, one systematic review was identified. Overall, there were 6 RCTs with 888 participants were included, of low to moderate quality. Three economic studies were identified.

Compared to internal fixation there was a significantly lower reoperation rate with both hemiarthroplasty and total hip replacement, less patient reported pain with total hip replacement and better functional or quality of life scores with hemiarthroplasty. There was no significant difference for mortality, length of stay, failure to return to the same place of residence and failure to regain mobility. None of the reported outcomes showed any advantage of internal fixation over arthroplasty.
Hemiarthroplasty was also compared to total hip replacement, using one systematic review and 7 RCTs with 734 participants. None of the reported outcomes showed any advantage of hemiarthroplasty over total hip replacement in the selected patient group. THR is dominant compared to hemiarthroplasty.

The evidence was of low or moderate quality.

In terms of the use of cement, one RCT including 220 participants was identified. No cost-effectiveness evidence was identified. A cost analysis was conducted based on the resources used in another study and on GDG expert opinion. A National Clinical Guideline Centre (NCGC) cost analysis which considered several cost components, such as the cost of the implants, length of stay in hospital, rate of re-operations, accessories costs for the cemented implants, found that cemented stems are £171.79 cheaper than the newer design uncemented stems. This evidence has minor limitation and partial applicability. None of the reported outcomes showed any advantage of uncemented arthroplasty over cemented.

There is no direct evidence comparing the use of cemented and uncemented stems in total hip replacement for displaced intracapsular fractures.

As the clinical evidence did not show any advantage of uncemented over cemented arthroplasty in the newer design, and as the cost of new designs of cemented implants was shown to be lower than that of uncemented implants, the GDG consider cemented implants cost-effective based on the outcomes reported though these are not statistically significant.

**Current clinical practice including evidence of variation**

The cementing of arthroplasties reduces postoperative pain and improves mobility. The [NHFD 2011 national report](#) states that it is encouraging to see that the rate of cement use is 68.2%, compared to 63% in 2010. The range remains from 0% to 100%.
The NHFD 2011 national report shows that 92% of displaced intracapsular fractures are treated with some form of arthroplasty, while 8% have a reduction and internal fixation (unchanged since 2010). All operations are as follows:

- Arthroplasty Unipolar hemi (cemented) (42.5%)
- Arthroplasty Unipolar hemi (uncemented – uncoated) (19.2%)
- Arthroplasty Bipolar hemi (cemented) (14%)
- Arthroplasty Other (12.5%)
- Internal fixation SHS (4.6%)
- Internal fixation Screws (3.4%)
- Other (1.2%)

**Indicator development issues**

**Feasibility assessment**

[1] HFra13 This indicator is available from existing data.

[2] HFra14 This indicator is available from existing data sources given amendments to the collection (e.g. a new data field).

**Other issues**

For HFra14, this would need an additional field as NHFD records the treatment given rather than the treatment offered.
QS08 Extracapsular fracture

NICE quality standard statement

People with trochanteric fractures above and including the lesser trochanter (AO classification types A1 and A2) receive extramedullary implants such as a sliding hip screw in preference to an intramedullary nail.

Proposed indicator(s) relevant to the quality statement

HFra15 – Of people with trochanteric fractures above and including the lesser trochanter (AO classification types A1 and A2), the proportion who receive a sliding hip screw.

Assessment against prioritisation criteria

Discussion of clinical and cost-effectiveness evidence

None of the studies reported shown any advantage of intramedullary devices over extramedullary devices. Intramedullary devices had been shown to have a higher re-operation rate due to an increased incidence of periprosthetic fracture both in the perioperative period and the postoperative period (risk ratio 5.61). This may be due to the inclusion of studies with original nail designs no longer implanted. All other outcomes have been reported as similar.

In patients with trochanteric fractures above and including the lesser trochanter (AO classification types A1 and A2) the price of intramedullary fixation devices varies but on average is three times the price of sliding hip screws for short nails and five times the price for long nails.

Current clinical practice including evidence of variation

The NHFD 2011 national report showed 83% of Intertrochanteric fractures received

- Internal fixation SHS (83.6%)
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- Internal fixation IM nail (long) (5.6%)
- Internal fixation IM nail (short) (5%)
- Internal fixation Screws (1.9%)
- Arthroplasty (1.1%)
- Other (0.5%)
- No operation performed (2%)
- Unknown (0.3%)

**Indicator development issues**

**Feasibility assessment**

[2] This indicator is available from existing data sources given amendments to the collection (e.g. a new data field)

**Other issues**

NHFD does not separate A1/A2 from A3 fractures. It is unlikely that this data can be easily captured as this distinction is rarely noted in surgical records. However A3 fractures only constitute 10% of trochanteric fractures, therefore potentially if the target is set at 90% the NHFD may capture this (expecting degree of non-compliance less than 10%).
QS09  Physiotherapy and mobilisation

NICE quality standard statement

People with hip fracture are offered a physiotherapist assessment the day after surgery and mobilisation at least once a day unless contraindicated.

Proposed indicator(s) relevant to the quality statement

HFra16 – Of people who have hip fracture surgery, the proportion who receive a physiotherapist [assessment] the day after surgery

HFra17 – Of people who have hip fracture surgery, the proportion who receive [physiotherapist-led] daily mobilisation from the day after surgery until discharged from the physiotherapy programme.

Assessment against prioritisation criteria

Discussion of clinical and cost-effectiveness evidence

Evidence on the cost effectiveness of early mobilisation treatments is lacking. Only one, small randomised controlled trial was identified with 60 patients. No economic studies were identified.

There is moderate quality evidence showing a statistically and clinically significant increase in independence and doubling of distance walked for those who had early compared to delayed mobilisation.

Early mobilisation strategies will generally involve higher personnel costs (linked to the provision of physiotherapy sessions over the entire week, thus also during weekends and public holidays). However, the cost-savings associated with an earlier recovery of ability to transfer and step without help of a person or walking aid, and agreed that early mobilisation strategy represent a cost-effective intervention for the population.

In terms of the physiotherapy assessment, three randomised studies were found with a total of 288 patients, comparing three different types of intensive physiotherapy/physical medicine programme. No economic studies were identified. A cost analysis was conducted based on the resources used in the
studies included in the clinical review in CG124. The evidence shows that there was no difference in once a day or twice a day physiotherapy for length of hospital stay and adductor muscle strength, therefore once a day was recommended.

Consensus in CG124 was that mobilisation at least once a day has potential benefits of improved mobility and balance, increased independence, and reduced need for institutional and social care. The included studies failed to show improvements for these outcomes, but are all small low quality studies.

There is a lack of cost-effective evidence on this question, and intensive rehabilitation sessions are likely to be more expensive than usual care. Intensive rehabilitation can bring some benefits in terms of strength and on other factors affecting the ability to walk and live independently. Therefore daily mobilisation sessions and regular physiotherapy review represent a cost-effective intervention for patients.

**Current clinical practice including evidence of variation**

The Royal College of Physicians’ [National audit of falls and bone health](#) shows there was an attempt to mobilise 68% of people with hip fracture within 24 hours.

**Indicator development issues**

**Feasibility assessment**

[2] This indicator is available from existing data sources given amendments to the collection (e.g. a new data field).

**Other issues**

NHFD does not collect data regarding specific therapy interventions; collection of this indicator would require multiple new fields.
QS10 Early supported discharge

NICE quality standard statement

People with hip fracture are offered early supported discharge (if they are eligible), led by the Hip Fracture Programme team.

Proposed indicator(s) relevant to the quality statement

HFra18 – Of people with hip fracture who are [eligible] for early supported discharge, the proportion who receive early supported discharge [led] by the Hip Fracture Programme team. [evidenced by a co-ordinated care plan, GMC number of responsible clinician]

HFra19 – Number of people receiving early supported discharge readmitted to any acute hospital within 30 days of discharge.

Assessment against prioritisation criteria

Discussion of clinical and cost-effectiveness evidence

Please see quality statement 1 regarding the evidence for the HFP team.

For early supported discharge, there were few studies identified, which ranged from low to high quality with often only one study per outcome. Therefore confidence in the results is low. This recommendation was therefore partly based on evidence and partly consensus opinion.

An original decision analysis has been conducted comparing the cost-effectiveness of the community MDR vs. usual care. The analysis showed that there is uncertainty as to whether MDR ESD at home is cost-effective compared to usual care. Multidisciplinary ESD at home in selected patients reduces hospital length of stay but may result in overall prolonged rehabilitation (hospital + home) compared to hospital MDR. Despite only a few low quality studies being identified the expert consensus was that multidisciplinary ESD at home is beneficial to a specific patient group. The evidence reviewed showed an increase in functional independence measures with ESD compared to usual care. The decision analysis found QALYs were
0.0456 higher in the community MDR arm of the study compared to usual care.

It is also important to note that the model did not find community MDR to be cost saving compared to usual care. This was because patients in the community MDR branch of the model underwent rehabilitation in their own home for a relatively longer period of time than those of the other studies included in the economic evidence profile.

**Current clinical practice including evidence of variation**

The Royal College of Physicians’ [National audit of falls and bone health](#) shows that 26% of hip fracture patients received support from a specialist early supported discharge team, up from 17% in 2007. This suggests there has been some investment in early supported discharge services for hip fracture patients since the last Royal College of Physicians’ [National audit of falls and bone health](#).

**Indicator development issues**

**Feasibility assessment**

[2] These indicators are available from existing data sources given amendments to the collection (e.g. a new data field)

**Other issues**

HFra18 – Although this indicator has been rated a 2, the NHFD has stated they have the capability and the commitment to provide the required fields.
QS11  Falls risk assessment

NICE quality standard statement

People with hip fracture are offered a multifactorial risk assessment to identify and address future falls risk, and are offered individualised intervention if appropriate.

Proposed indicator(s) relevant to the quality statement

HFra20 – Of people with hip fracture, the proportion who receive a [multifactorial risk assessment*] of future falls risk, led by the Hip Fracture programme team [evidenced by GMC number of responsible clinician * At least medication review, visual acuity, postural BP measurement

HFra21 – Of people with hip fracture and [assessed to be at risk] of falls, the proportion who receive individualised [intervention], including onwards referral.

Assessment against prioritisation criteria

Discussion of clinical and cost-effectiveness evidence

Of the eight studies that evaluated a multifactorial screening and intervention programme in community dwelling older people, who were recruited on the grounds of age and domestic circumstances, without a requirement for the presence of known risk factors, data were pooled from four (Fabacher 1994; Jitapunkul 1998; Newbury 2001;Wagner 1994) involving 1,651 participants. The pooled data are homogeneous and show that the interventions are effective in reducing the proportion of fallers in the intervention group (pooled RR 0.73, 95%CI 0.63 to 0.85).

The studies reporting significant results suggest that a multifactorial approach, including multidisciplinary assessment and targeted interventions, could have some impact on reducing the incidence of falling as part of a rehabilitation programme following a fall resulting in medical attention. It is less clear from this evidence of the impact of these complex interventions on other factors –
such as confidence; quality of life and acceptability – as limited data were available.

Two trials suggest that a multidisciplinary, multifactorial approach to management of older people, who have suffered an injurious fall and who have received treatment in a primary care or acute care setting, is an effective intervention package. Important components include assessment and a targeted intervention(s), underpinned by detailed discharge planning. It is less clear which specific mechanisms of this multifactorial approach to rehabilitation are effective, but the fundamental key to success may be through comprehensive discharge planning.

**Current clinical practice including evidence of variation**

The [NHFD 2011 national report](#) shows there has been a marked improvement in the percentage of patients getting a specialist falls assessment. Now, 81% get an assessment or referral to a clinic compared with 63% last year.

There is a 5% difference in the number of hospitals that have an on-site falls clinic, which could account for some the improvement in falls assessments.

The [NHFD 2011 national report](#) also states that it is encouraging that 76% of patients now receive both falls and bone health assessments.

**Indicator development issues**

**Feasibility assessment**

[1] HFra20 This indicator is available from existing data.

[2] HFra21 This indicator is available from existing data sources given amendments to the collection (e.g. a new data field).
QS12 Bone health assessment

NICE quality standard statement

People with hip fracture are offered a bone health assessment to identify future fracture risk and offered pharmacological intervention as needed before discharge from hospital.

Proposed indicator(s) relevant to the quality statement

HFra22 – Of people aged 74 years and under with a hip fracture, the proportion in whom a dual-energy X-ray absorptiometry (DXA) scan is either completed prior to discharge or is scheduled post discharge from hospital.

HFra23 – Of people aged 75 years and over with a hip fracture, the proportion who are discharged on [appropriate medication] to help prevent further fractures.

Assessment against prioritisation criteria

Discussion of clinical and cost-effectiveness evidence

No clinical and cost effectiveness evidence will be presented.

Current clinical practice including evidence of variation

The [NHFD 2011 national report](#) shows that 66% of people who have experienced a hip fracture were discharged on bone health medication, up from, 57% the previous year. 8% were awaiting a DXA scan or bone clinical assessment.

The [NHFD 2011 national report](#) also shows there has been a slight (2%) rise to 11.6% in the percentage of patients who are taking bone protection medication at the time of their admission. If this continues it may indicate an improvement in the secondary prevention available to all fragility fracture patients.
Finally, the audit shows there has been no change in the availability of DXA scanners, 62.5% with axiel scanners, 5.7 peripheral scanners and 31.8% no scanners.

**Indicator development issues**

**Feasibility assessment**

[2] HFra22 This indicator is available from existing data sources given amendments to the collection (e.g. a new data field)

[1] HFra23 This indicator is available from existing data

**Other issues**

HFra22 assumes DXA will be done post discharge.

The NICE QOF menu of indicators contains primary care related osteoporosis indicators:

The practice can produce a register of patients: 1. Aged 50-74 years with a record of a fragility fracture after 1 April 2012 and a diagnosis of osteoporosis confirmed on DXA scan, and 2. Aged 75 years and over with a record of a fragility fracture after 1 April 2012 QOF 12/13

The percentage of patients aged between 50 and 74 years, with a fragility fracture, in whom osteoporosis is confirmed on DXA scan, who are currently treated with an appropriate bone-sparing agent QOF 12/13

The percentage of patients aged 75 years and over with a fragility fracture, who are currently treated with an appropriate bone-sparing agent QOF 12/13
Section 4 Other outcome indicators identified by the Review Group for hip fracture

As part of the indicator development process, the COF indicator hip fracture Review Group considered whether there were any outcome indicator that would reflect the provision of high quality care for people with hip fracture as defined in the Quality Standard as a whole or other system wide levers.

Indicators that the COF indicator hip fracture Review Group considered appropriate are provided below.

Other outcome indicators

HFra24 Hip fracture incidence
HFra25 Hip fracture prevalence
HFra26 Mortality following hip fracture [within 30 days or 12 months]
HFra27 Readmission within 30 days
HFra28 Reoperation [after 12 months (allowing 6-12 months for complications)]
HFra29 Return home from home within 30 days
HFra30 Length of stay
HFra31 Return to pre facture mobility [within 6-12 months]

Assessment against prioritisation criteria

Current clinical practice including evidence of variation

HFra24 Hip fracture incidence

- About 70,000 to 75,000 hip fractures (proximal femoral fractures) occur annually in the UK, with a cost (including medical and social care) amounting to about £2 billion a year. Demographic projections indicate that the UK annual incidence will rise to 91,500 by 2015 and 101,000 in 2020, with an associated increase in annual expenditure.
ITEM 15 – Hip Fracture

HFra25 Hip fracture prevalence
   • No information is presented.

HFra26 Mortality following hip fracture
   • Mortality is high - about one in ten people with a hip fracture die within 1 month and about one in three within 12 months. Most of the deaths are a result of associated comorbidities and not the fracture itself, reflecting the high prevalence of comorbidity in people with hip fracture. A fall and fracture often signals underlying ill health.

HFra27 Readmission
   • The Health and Social Care Information Centre (HSCIC) HSCIC indicator portal has an indicator “Emergency readmissions to hospital within 28 days of discharge: primary hip replacement surgery”, which shows that 6% of admissions were readmitted in the period 2008/09 to 2009/10. For the previous 5 years readmissions have remained consistently around the 6% level.

HFra28 Reoperation
   • The HSCIC indicator portal has an indicator “Hospital procedures: revision hip replacement”, which shows that the rate per 100,000 was 25.99 in the period 2009/10. For the previous five years readmissions were consistently around 26 to 27 per 100,000.

HFra29 Return home from home within 30 days
   • The NHFD 2011 national report shows that the overall rate of return home by 30 days is 43.3%.

HFra30 Length of stay
   • The NHFD 2011 national report shows that mean length of acute stay of 16.4 days with a mean length of post-acute stay within the trust of 4.8 days, a total of 21.2 days. This compares favourably
ITEM 15 – Hip Fracture

with 2010 in which the mean length of acute stay was 19.7 days and the mean post acute stay was 6.2 days, totalling 25.9.

HFra31 Return to pre fracture mobility

- No information is presented

**Indicator development issues**

**Feasibility assessment**

[1] HFra24 and HFra26-31 – these indicators are available from existing data.

[2] HFra25 – This indicator is available from existing data sources given amendments to the collection (e.g. a new data field).

**Other issues**

HFra26, 27, 29 and 30 – the Health and Social Care Information Centre (HSCIC) feel that it may be helpful to place at the beginning of the indicators “Of the people admitted to hospital with hip fracture….“.

HFra24

The NHFD are working with the Royal College of Surgeons of England to validate a HES based calculation of Trust level incidence.

HFra25

Prevalence might be calculated from the GP database.

HFra26

HES can identify those admitted to hospital with hip fracture and any surgery that was performed. The HSCIC feel it may need to be considered whether to focus on admissions only or treatments. A link to the ONS mortality data can provide subsequent mortality figures within 30 days and 12 months.

The NHFD routinely calculates the Trust level case mix adjusted 30 day mortality rate on patients entered on the database. HES based linkage should give more accurate raw figures but is less equipped to case mix adjust.
HES can identify admissions and readmissions for hip fracture. The HSCIC feel consideration is required regarding whether to include elective and/or emergency admissions.

The NHFD feel that a lot of clinicians would be hostile to any measure that failed to differentiate between elective and emergency readmission.

HFra28

HES can use OPCS codes to identify the relevant procedures (hip fracture/replacement). The HSCIC feel clarification is needed on ‘allowing 6-12 months for complications’ and whether to focus on revisions to surgery or to include surgery on the other hip. Also the cut-off date (after 12 months).

NHFD finds it difficult to collect data at 30 days due to lack of clinical engagement.

HFra29

HES can identify those with an admission source and discharge destination of below, calculating the difference between admission date and discharge date of the continuous inpatient (CIP) spell. Some thought needs to be given on whether to focus on admissions only or treatments.

Options for ‘home’

19 = The usual place of residence, including no fixed abode

29 = Temporary place of residence when usually resident elsewhere, for example, hotels and residential educational establishments

Case mixed adjusted outcomes form a part of the NHFD report.

HFra30

HES can calculate the length of stay between admission and discharge date of the CIP spell. Again, thought should be given about whether to include elective and/or emergency admissions.

NHFD are working with the Royal College of Surgeons of England to calculate superspell data on all cases reported to the NHFD.

HFra31

NHFD working with the Department of Health on measures of return to mobility at 30 and 120 days. Approximately 42% return to previous mobility at
120 days but Trusts vary significantly in follow up rates. Consideration should be given to outcomes being case mix adjusted.
Section 5 Statement from the Chair of the hip fracture Review Group

The indicator statements presented in this briefing paper are clinically valid and important from a commissioning perspective. There are definitions that require further clarification and supporting items that can be collected to a greater or lesser extent.

Most are immediately feasible primarily thanks to the given robust audit source, the National Hip Fracture Database (NHFD), supported by ongoing HQIP funding. (I am aware that the NHFD has both the capability and the commitment to adopt additional fields reflecting NICE requirements, and also on an ad hoc basis to undertake “sprint audits” if indicated.)

It has proved difficult to prioritise these indicators, because all of are deemed high priority by the COF Review Group. This is because the approach taken by the group (particularly for process measures) tracks key stages in the clinical course with a careful focus in parallel on measurability and sensitivity to quality and outcome. The outline below, however, covers some of the critical issues and indicates where certain indicators might be regarded either as subsidiary to, or as logical corollaries of, the more fundamental indicators.

Quality Standard driven (mainly process) indicators

HFra01 (regarding the HFP from admission) is fundamentally important as the HFP underpins the whole patient care pathway for hip fracture. Both HFra01 (above) and HFra03 are related to the Hip Fracture Programme (HFP). If HFra01 were rigorously implemented, it would negate the need for HFra03. The TEG, however, had doubts that this would be the case immediately as there is currently a widespread problem of discontinuity (and cost-ineffectiveness) associated with care provision which is inconsistent with the HFP model. This indicator is therefore important to ensure the implementation of the HFP.
Cognitive assessment is important both before and after surgery, and highly feasible in terms of data collection. If priority has to be assigned, it is more important that patients receive this documented assessment preoperatively (HFra05) than postoperatively (HFra06).

The reliability and immediacy of pain relief (HFra07) have been highlighted as critical management indicators by lay representatives; and the importance of opiate sparing strategies in analgesia for operative and postoperative outcome (HFra08) by anaesthetists. Adequate postoperative analgesia is self-evidently important for early mobilisation, so that HFra09 might be considered a sequential corollary of HFra07 and HFra08 and therefore less crucial as an independent indicator.

Receiving surgery on the day of or day after admission (HFra10) is of fundamental importance.

For the indicators regarding planning the theatre team, HFra11 (receiving surgery on a planned trauma list) is crucial and easily achievable in the NHFD with the single additional field. HFra12 (surgeon seniority) is also important and evidence-based, but in the real world likely to be a consequence of HFra11, and might, therefore, be seen in audit terms as subsidiary to it.

HFra 13 - 15 are fundamental and indicative of best evidence-based practice in the case of each category of fracture.

In terms of physiotherapy and mobilisation, again both are very important, but HFra16 (receiving a physiotherapy assessment) would be easier to measure than HFra17 (physiotherapist led mobilisation) and should have precedence for this reason.

The delivery of early supported discharge led by the HFP team to all those eligible (HFra18) is a highly important index of quality. The 30-day readmission measure (HFra19) is a subsidiary safeguard and somewhat more controversial (see overarching indicators).
For secondary prevention of falls, individualised intervention (HFra21) will be a logical corollary of multifactorial risk assessment (HFra20), and therefore it is most important that HRa20 (risk assessment) is audited – currently in place via the NHFD.

In summary, whilst all indicators are considered important, highest priority from a TEG perspective is with HFra 01, 03, 05, 07, 08, 10, 11, 13, 14, 15, 16, 18 & 20. To ensure efficient service delivery & organisation, HFra 01, 03, 10, 11 & 18 are critical.

**Overarching (outcome) indicators**

The NHFD offers an unparalleled potential to measure outcome. The following points apply to the comparative relevance and sensitivity of the proposed measures, although all are considered important.

The COF indicators for Hip Fracture management by definition exclude primary prevention of hip fracture, to which HFra24 (incidence) and HFra25 (prevalence) relate more closely (i.e. primary management of osteoporosis). These particular indicators are therefore less sensitive to hip fracture management per se, (although secondary prevention is incorporated, and any prior fragility fracture is a key single risk determinant).

Readmission (HFra27) may be due to several confounding factors (other than inadequate hip fracture management) making this a potentially more controversial indicator.

HFra26 (30 day and 12 month mortality) is a highly sensitive indicator of quality. Both time-points are indicative of the combined effectiveness of surgical-anaesthetic-orthogeriatric collaboration.

HFra28 (reoperation) is a key indicator of the selection and implementation of surgical techniques.

HFra29 (return home from home) is an important measure of coordination and quality of the entire Hip Fracture Programme care pathway.
**HFra30** (LOS) is an indirect indicator of the efficiency of the HFP and is also important from an economic point of view, but may be susceptible to gaming e.g. premature discharge. Care is therefore needed with this measure.

**HFra31** (return to pre-fracture mobility) is a helpful indicator of the success of complex medical, surgical and multidisciplinary intervention, but most hip fracture sufferers experience some degree of longer term impairment, ranging from very slight to very severe.

In summary, while all the above outcome indicators have strength interpreted in context, the most robustly sensitive and specific are HFra 26, 28 & 29.
Section 6 Indicators identified from other sources

No further indicator statements have been identified from other sources.
Section 7 Candidate indicators

The below tables present those indicator statements that are considered to fall into the following three categories:

1) No significant feasibility issues have been identified at this stage in the process to preclude recommendation for indicator development

2) Indicators can be developed that could be measured through available information systems provided that new data fields are added to existing systems

3) Indicators can be developed, but these will require new data collections for the indicator to be produced in a meaningful manner

Table 1 No significant feasibility issues have been identified at this stage in the process to preclude recommendation for indicator development

<table>
<thead>
<tr>
<th>Area of care</th>
<th>ID</th>
<th>Indicator statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive assessment</td>
<td>HFra05</td>
<td>Of people with hip fracture, the proportion receiving recorded [preoperative] cognitive assessment and measurement using a [validated tool].</td>
</tr>
<tr>
<td>Cognitive assessment</td>
<td>HFra06</td>
<td>Of people with hip fracture, the proportion who have undergone surgery receiving a recorded [postoperative] cognitive assessment and measurement using a [validated tool].</td>
</tr>
<tr>
<td>Timing of surgery</td>
<td>HFra10</td>
<td>Of people with hip fracture, the proportion who receive surgery [on the day of, or the day after], admission.</td>
</tr>
<tr>
<td>Intracapsular fracture</td>
<td>HFra13</td>
<td>Of people with displaced intracapsular fracture, the proportion who receive cemented arthroplasty.</td>
</tr>
<tr>
<td>Falls risk assessment</td>
<td>HFra20</td>
<td>Of people with hip fracture, the proportion who receive a [multifactorial risk assessment*] of future falls risk, led by the Hip Fracture programme team [evidenced by GMC number of</td>
</tr>
</tbody>
</table>
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<tr>
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<tr>
<td>Bone health assessment</td>
<td>HFra23</td>
<td>Of people aged 75 years and over with a hip fracture, the proportion who are discharged on [appropriate medication] to help prevent further fractures.</td>
</tr>
<tr>
<td>Other outcome indicators</td>
<td>HFra24</td>
<td>Hip fracture incidence</td>
</tr>
<tr>
<td>identified by the Review Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other outcome indicators</td>
<td>HFra26</td>
<td>Mortality following hip fracture [within 30 days and 12 months]</td>
</tr>
<tr>
<td>identified by the Review Group</td>
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<td></td>
</tr>
<tr>
<td>Other outcome indicators</td>
<td>HFra27</td>
<td>Readmission within 30 days</td>
</tr>
<tr>
<td>identified by the Review Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other outcome indicators</td>
<td>HFra28</td>
<td>Reoperation [after 12 months (allowing 6-12 months for complications)]</td>
</tr>
<tr>
<td>identified by the Review Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other outcome indicators</td>
<td>HFra29</td>
<td>Return home from home within 30 days</td>
</tr>
<tr>
<td>identified by the Review Group</td>
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<td></td>
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<tr>
<td>Other outcome indicators</td>
<td>HFra30</td>
<td>Length of stay</td>
</tr>
<tr>
<td>identified by the Review Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other outcome indicators</td>
<td>HFra31</td>
<td>Return to pre fracture mobility [within 6-12 months]</td>
</tr>
<tr>
<td>identified by the Review Group</td>
<td></td>
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</tr>
</tbody>
</table>

Table 2 Indicators can be developed that could be measured through available information systems provided that new data fields are added to existing systems.

<table>
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<tr>
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<tbody>
<tr>
<td>Hip Fracture Programme</td>
<td>HFra01</td>
<td>Of people with hip fracture, the proportion who receive a [formal Hip Fracture Programme] from admission [evidenced as having a [joint acute</td>
</tr>
</tbody>
</table>

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<td>Of people with hip fracture, the proportion who receive a [formal Hip Fracture Programme] from admission [evidenced as having a [joint acute</td>
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<td>Indicator statements</td>
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</tr>
<tr>
<td>Continuity of clinical and service</td>
<td></td>
<td>Of people with hip fracture transferred from hospital for early supported discharge or intermediate care, the proportion for whom the [Hip Fracture Programme team] makes (and documents the objectives of) the decision to transfer, with a plan for follow-up.</td>
</tr>
<tr>
<td>service governance</td>
<td>HFra03</td>
<td></td>
</tr>
<tr>
<td>Analgesia</td>
<td></td>
<td>Of people with hip fracture, the proportion who receive a [formal, recorded pain assessment] within 60 minutes of admission to the emergency department and within 30 minutes of initial analgesic administration</td>
</tr>
<tr>
<td>Analgesia</td>
<td>HFra07</td>
<td>Of people with hip fracture who receive analgesia, the proportion who are prescribed paracetamol as first-line analgesia on admission to the emergency department and at least every 6 hours [preoperatively], unless contraindicated</td>
</tr>
<tr>
<td>Analgesia</td>
<td>HFra08</td>
<td>Of people with hip fracture, the proportion who are prescribed paracetamol at least every 6 hours [postoperatively] for a minimum of 5 days.</td>
</tr>
<tr>
<td>Planning the theatre team</td>
<td>HFra11</td>
<td>Of people with hip fracture, the proportion who receive surgery on a [planned trauma list].</td>
</tr>
<tr>
<td>Planning the theatre team</td>
<td>HFra12</td>
<td>Of people with hip fracture, the proportion who receive surgery from an [appropriately senior team] who have completed the WHO checklist team briefing.</td>
</tr>
<tr>
<td>Intracapsular fracture</td>
<td>HFra14</td>
<td>Of people with displaced intracapsular fracture and [clinically eligible] for a total hip replacement, the proportion who are [offered] total hip replacement.</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Area of care</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Extracapsular fracture</td>
<td>HFra15</td>
<td>Of people with trochanteric fractures above and including the lesser trochanter (AO classification types A1 and A2), the proportion who receive a sliding hip screw.</td>
</tr>
<tr>
<td>Physiotherapy and mobilisation</td>
<td>HFra16</td>
<td>Of people who have hip fracture surgery, the proportion who receive a physiotherapist [assessment] the day after surgery.</td>
</tr>
<tr>
<td>Physiotherapy and mobilisation</td>
<td>HFra17</td>
<td>Of people who have hip fracture surgery, the proportion who receive [physiotherapist-led] daily mobilisation from the day after surgery until discharged from the physiotherapy programme.</td>
</tr>
<tr>
<td>Early supported discharge</td>
<td>HFra18</td>
<td>Of people with hip fracture who are [eligible] for early supported discharge, the proportion who receive early supported discharge [led] by the Hip Fracture Programme team. [evidenced by a co-ordinated care plan, GMC number of responsible clinician].</td>
</tr>
<tr>
<td>Early supported discharge</td>
<td>HFra19</td>
<td>Number of people receiving early supported discharge readmitted to any acute hospital within 30 days of discharge.</td>
</tr>
<tr>
<td>Falls risk assessment</td>
<td>HFra21</td>
<td>Of people with hip fracture and [assessed to be at risk] of falls, the proportion who receive individualised [intervention], including onwards referral.</td>
</tr>
<tr>
<td>Bone health assessment</td>
<td>HFra22</td>
<td>Of people aged 74 years and under with a hip fracture, the proportion in whom a dual-energy X-ray absorptiometry (DXA) scan is either completed prior to discharge or is scheduled post discharge from hospital.</td>
</tr>
<tr>
<td>Other outcome indicators identified by the</td>
<td>HFra25</td>
<td>Hip fracture prevalence</td>
</tr>
</tbody>
</table>
## Area of care ID Indicator statements

| Review Group |   |   |
References

Health and Social Care Information Centre (2012) HSCIC indicator portal


