**Fracture Liaison Service Implementation Toolkit**

**Service Specification**

* *Mandatory headings 1-4: mandatory but detail for local determination and agreement.*
* *Optional headings 5-7: optional to use, detail for local determination and agreement.*
* *All subheadings for local determination and agreement.*

***This template***

*This resource has been created by the National Osteoporosis Society as part of the Fracture Liaison Service Implementation Toolkit (FLS-IT). The aim of the toolkit is to take some of the hard work out of establishing a new Fracture Liaison Service (FLS) or improving an existing one.*

*This template has been created by working professionals in the NHS in each of the four home nations and makes use of current policy and best practice. It has been designed to save the user the time and trouble of researching, drafting and editing a document or workbook from scratch. References have been included where relevant.*

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| **Using this tool**Note that this template is based on the service specification in use in the NHS England as part of the standard NHS contract for acute services. Text may be edited, amended or copied for use in other service specification templates in use in other home nations. |

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| **Service Specification No.** | FRACTURE LIAISON SERVICE |
| **Service** |  |
| **Commissioner Lead** | **[insert name of lead commissioner]** |
| **Provider Lead** | **[insert name of lead clinician]** |
| **Period** | **[insert time period]** |
| **Date of Review** | **[insert review date]** |

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| 1. Population Needs |
| National ContextOver three million people in the UK have osteoporosis; these people are at a substantially increased risk of fragility fractures.[[1]](#endnote-1) Every year, in the UK hip fractures alone account for 1.8 million hospital bed days and £1.9 billion in hospital costs, excluding the high cost of social care.[[2]](#endnote-2),[[3]](#endnote-3)Preventing fragility fractures and the resulting hospital admissions is clinically and economically effective and will result in substantial cost savings for health and social care services. Evidence BaseThe best way to reduce the number of fragility fractures suffered by older people is through the development of local Fracture Liaison Services (FLS). Any effective FLS will reduce the relative risk of refracture by 30% for all fractures and 40% for major fractures.[[4]](#endnote-4)FLSs systematically identify, treat and refer to appropriate services all eligible patients over 50 who have suffered a fragility fracture, with the aim of reducing their risk of subsequent fractures.Most primary care organisations do not have access to services for secondary fracture prevention; currently only 42% of health economies in the UK offer some form of FLS.[[5]](#endnote-5),[[6]](#endnote-6) Prevention of a secondary fracture improves quality of life, as well as reducing hospital admissions and health and social care costs. Therefore an FLS is an important service that should be developed as part of a hospital’s admission avoidance strategy. Current national guidance provides evidence that effective case-finding and use of appropriate drug therapies will reduce the risk of future clinical fractures by up to 50% and this reduction in fracture incidence is realised quickly and certainly within three years of pharmacotherapy.Several publications provide evidence for the effectiveness of FLSs and recommend implementation:* SIGN 142, 2015. Management of Osteoporosis and the prevention of fragility fractures. A national clinical guideline. Available at: <http://sign.ac.uk/pdf/SIGN142.pdf>
* National Osteoporosis Society, 2012. Breaking Through: Building Better Falls and Fracture Services in England. London: National Osteoporosis Society. Available at: <http://www.nos.org.uk/document.doc?id=987>
* All Wales Osteoporosis Advisory Group, 2012. All Wales Audit of Secondary Prevention of Osteoporotic Fractures 2012. Available at:

<https://www.nos.org.uk/document.doc?id=1285>Department of Health, 2009. Falls and Fractures: Effective interventions in health and social care. London: Department of Health. Available at: [http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod\_consum\_dh/groups/dh\_digitalassets/@dh/@en/@pg/documents/digitalasset/dh\_109122.pdf](http://webarchive.nationalarchives.gov.uk/20130107105354/http%3A//www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/%40dh/%40en/%40pg/documents/digitalasset/dh_109122.pdf) * Department of Health, 2009. Fracture Prevention Services: An economic evaluation. London: Department of Health. Available at: [http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod\_consum\_dh/groups/dh\_digitalassets/documents/digitalasset/dh\_110099.pdf](http://webarchive.nationalarchives.gov.uk/20130107105354/http%3A//www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_110099.pdf)
* British Orthopaedic Association, 2007. The Blue Book: The Care of Patients with Fragility Fractures. London: British Orthopaedic Association. Available at: <http://www.fractures.com/pdf/BOA-BGS-Blue-Book.pdf>
* Royal College of Physicians, 2007. National Clinical Audit of Falls and Bone Health for Older People. London: Royal College of Physicians. Available at: <https://www.rcplondon.ac.uk/sites/default/files/national-clinical-audit-of-falls-and-bone-health-in-older-people-national-report-2007.pdf>

General OverviewThe British Orthopaedic Association has stated that “A major change is needed in fracture services to ensure that every patient presenting with a fragility fracture is assessed for osteoporosis and referred for treatment as appropriate. Secondary prevention should not only address osteoporosis but the risk of additional falls should be addressed, in terms of the patient’s medical condition and that of their environment.”[[7]](#endnote-7)Research has shown that a previous fracture increases a patient’s risk of suffering a further fracture by at least twice and that this risk of further fractures may be even greater in men. The future fracture risk is greatest during the first year following the initial fracture. This highlights the need for early and structured post fracture interventions. It has also been shown that increased emphasis on prevention strategies, such as pharmacotherapy, reduces the incidence of re-fracture between 20 and 70% depending on the fracture site. This reduction in fracture incidence is realised during three years of pharmacotherapy.Approximately 50% of hip fracture patients have experienced a prior fragility fracture; this could have served as a trigger for assessments of both osteoporosis and falls risk thereby reducing the risk of a secondary fracture occurring.[[8]](#endnote-8),[[9]](#endnote-9),[[10]](#endnote-10),[[11]](#endnote-11)  Fractures should not be thought of as isolated events but rather as part of an ongoing chronic disease process ultimately associated with progressive morbidity and premature mortality.Early assessment aimed at prevention of secondary fragility fractures will result in optimisation of clinical care, which will lead to improved outcomes in terms of:* Long term reduction in fragility fracture
* Decrease in delay in assessments for bone health
* Appropriate referral for bone densitometry via DXA
* Medication adherence through education and support
* Improved quality of life
* Improved health and well-being
* Referral into and uptake of falls services to implement interventions around falls
* Reduction in mortality rate.

A systematic approach to the prevention of secondary fractures is evidence based and effective.[[12]](#endnote-12) The second of the Department of Health’s four objectives in its systematic approach to falls and fracture care and prevention is *‘Respond to the first fracture, prevent the second.’* 12The challenge is how to consistently and effectively deliver this secondary fracture prevention service to all patients who present with a fragility fracture. The model of the integrated FLS is now widely recognised as the most effective approach to delivering this service. An effective FLS is developed around a fracture liaison coordinator – often a nurse specialist – supported by a named lead clinician. The service promotes coordination between acute, community and primary care to ensure that care is seamless and consistent.  |
| 2. Outcomes  |
| **2.1 NHS Outcomes Framework Domains & Indicators**This section sets out the indicators in each of the outcomes frameworks (England only) to which an FLS will contribute to the achievement. **NHS Outcomes Framework 2015–2016**DOMAIN 3: Helping people to recover from episodes of ill health or following injuryImproving recovery from fragility fractures *3.5 Proportion of patients recovering to their previous levels of mobility/walking ability at i) 30 and ii) 120 days***CCG Outcomes Indicator Set 2015–2016**DOMAIN 1: Preventing people from dying prematurelyReducing premature death from fragility fractures – Hip fracture incidence*1.22 The rate of people admitted with a primary diagnosis of hip fracture per 100,000 CCG population*DOMAIN 3: Helping people to recover from episodes of ill health or following injuryImproving recovery from fragility fractures *3.10 Proportion of patients recovering to their previous levels of mobility/walking ability at i) 30 and ii) 120 days \*also NHS OF indicators 3.5i) and 3.5ii)*Improving recovery from fragility fractures – Hip fracture: formal hip fracture programme*3.11 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 multidisciplinary team (MDT) rehabilitation agreed with a responsible orthogeriatrician and orthopaedic surgeon, with General Medical Council (GMC) numbers recorded*Improving recovery from fragility fractures – Hip fracture: timely surgery*3.12 Of people with hip fracture, the proportion who receive surgery on the day of, or the day after, admission*Improving recovery from fragility fractures – Hip fracture: multifactorial risk assessment*3.13 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***Public Health Outcomes Framework 2013–2016** DOMAIN 2: Health ImprovementPeople are helped to live healthy lifestyles, make healthy choices and reduce health inequalitiesInjuries due to falls in people aged 65 and over*2.24i) Age-sex standardised rate of emergency hospital admissions for injuries due to falls in persons aged 65 and over per 100,000 population. [2.24ii) and 2.24iii) break this down into age groups 65-79 and 80+]***2.2 Locally defined outcomes**Early intervention for fragility fractures results in optimisation of clinical care, which will lead to improved outcomes in terms of:* Long term reduction in fragility fracture
* Prevention of further falls and secondary fractures
* Improved adherence to prescribed medication
* Improved quality of life
* Improved health and well-being
* Referral into falls services to implement interventions around falls
* Reduction in mortality rate
* Decrease in delay in assessments for bone health
* Appropriate referral for bone densitometry via DXA.

**[Edit this list and/or insert local outcomes]** |
| 3. Scope |
| **3.1 Aims and objectives of service**The development of an FLS presents an opportunity to break the fragility fracture cycle through the overall aim of responding to the first fracture and preventing the second.The objectives of the service are to:* Ensure that patients who sustain a fragility fracture receive secondary bone health assessments and interventions
* Ensure that patients receive appropriate care following a fracture in order to obtain optimum benefit from the treatment
* Deliver best practice in a cost effective way through a locally agreed pathway
* Improve the quality of the experience for the individual and their family by developing high quality education around the opportunities for intervention
* Reduce the cost to the health economy of fragility fractures through effective prevention of secondary fractures.

 **[Edit this list and/or insert local aims and objectives]****3.2 Service description/care pathway****[It is important that this section edited to reflect the agreed local pathway]**An FLS and care pathway is commissioned to provide specialist secondary fracture prevention assessment and management to patients and to support an integrated approach for fragility fracture. The service will include:* Case-finding with an aim to assess all patients with new clinical and/or radiological fragility fracture presentation at any skeletal site. This would include the following groups of patients:
1. Inpatients on acute orthopaedic/trauma wards
2. Inpatients on general medical or elderly care wards not requiring surgical fixation
3. Those presenting acutely and not requiring hospital admission but managed as outpatients via orthopaedic fracture clinic or emergency department follow up
4. Patients presenting acutely but not requiring hospital admission or fracture clinic follow-up
5. New spine fractures identified on radiology reports (incidental or anticipated)
6. New fractures as a result of a fall during hospitalisation for other reasons
7. Patients have a CT or other scan where a fragility fracture might be detected opportunistically
* Triage and assessment of identified patients by fracture liaison coordinators/specialist nurses within 3 months of the incident fracture
* Diagnosis of osteoporosis using DXA
* Appropriate investigations to exclude secondary causes of osteoporosis or fracture
* Identification of patients at risk of further/future falls whose behaviour can be modified and referral to a falls prevention service or other appropriate intervention
* Initiation of treatment for fracture risk reduction in line with agreed guidelines
* Bone health management plan to be agreed with the patient. This should include information on bone health, lifestyle, nutrition and bone protection treatments. A copy to be held by the patient and the patient’s general practitioner
* Dependent on local agreement:
* Prescription and dispensing of medication for **[XX]** days

OR* Request to general practitioner that treatment is to be initiated according to treatment plan
* Liaison with the patient’s general practitioner with the aim of optimising long term treatment and compliance
* Follow up of patients at 4 and every 12 months thereafter to monitor adherence with plan. **[Method of follow up to be agreed locally - telephone follow up is known to be clinically and cost effective]**
* Education and support for primary care
* Promotion of service to all relevant hospital teams in order to maximise case finding
* Specialist clinic support for secondary care clinicians in managing complex and rare bone conditions
* A database of patients assessed through the service to support audit against national standards and patient follow up.
* Survey of patient experience
* Participation in [Fracture Liaison Service Database](https://www.rcplondon.ac.uk/projects/fracture-liaison-service-database-fls-db)

 **[Edit this list and/or insert local aims and objectives]****Service Delivery*** The service shall operate **[insert hours/days here]**
* During operating hours the service shall respond to requests for assessment within **[X]** hours by telephone
* During operating hours the service shall carry out an assessment within **[X hours/days]** of request
* Admitted patients who are not ambulatory will be assessed at bedside
* The service **[will/will not]** carry out assessments of patients in care homes or community hospitals

**[Local discussion will be needed on whether the service will include domiciliary visits and other outreach elements]** **3.3 Population covered**The service will assess and manage the bone health of all patients over 50 who have suffered a fragility fracture to prevent subsequent fractures.The service will be available to: * All patients admitted to **[name of hospital]**
* All patients registered with a GP practice in **[name of CCG]** or resident in **[name of local authority(ies)]**

**[Edit above as appropriate]****3.4 Any acceptance and exclusion criteria and thresholds**The service will accept and manage the assessment of osteoporosis and future fracture risk of all patients over 50 who have suffered a fragility fracture to prevent subsequent fractures.Referrals are accepted from: * Medical Assessment Unit
* Fracture clinic
* Falls team (if separate from above)
* Inpatient wards
* Emergency department
* Radiology
* GPs
* Community nurses
* Community hospital
* Physiotherapists
* Other AHPs

**[edit above as appropriate]****Referral Route**Referrals will be accepted using the following methods:* e-referral
* Letter **[add local information here]**
* Electronic mail or message **[add local information here]**

**Exclusion criteria**The following categories of patient will be excluded from access to the service:* No evidence of fragility fracture
* Fragility fracture to **[This needs to be agreed locally, examples of excluded fracture types include: fingers, toes, scaphoid, face or skull only]**
* Fracture due to high trauma or metastasis or other bone pathology.

**3.5 Interdependence with other services/providers**The service shall operate as part of an integrated system for the prevention of fractures and falls. It will, therefore, work closely with other parts of the health and social care system including:* Falls services
* Medical Assessment Unit
* Orthopaedics and trauma
* Medicine and care of older people departments
* Emergency department
* Radiology
* Intermediate care
* Falls co-ordinator and falls prevention services
* GPs
* Community nurses
* Community hospitals
* Clinical commissioning groups
* Public health
* Physiotherapists
* Other AHPs.

**[Edit this list as required]** |
| 4. Applicable Service Standards |
| **4.1 Applicable national standards (e.g. NICE)*** National Osteoporosis Society, 2014. Effective Secondary Prevention of Fragility Fractures: Clinical Standards for Fracture Liaison Services
* NICE Technology appraisal TA160, [Alendronate, etidronate, risedronate, raloxifene and strontium ranelate for the primary prevention of osteoporotic fragility fractures in postmenopausal women](http://www.nice.org.uk/guidance/ta160), 2008 (amended 2011); National Institute for Care and Health Excellence
* NICE Technology appraisal TA161, [Alendronate, etidronate, risedronate, raloxifene, strontium ranelate and teriparatide for preventing bone fractures in postmenopausal women with osteoporosis who have already had a fracture](http://www.nice.org.uk/guidance/ta161), 2008 (amended 2008); National Institute for Care and Health Excellence
* NICE Clinical guideline CG146, [Osteoporosis: assessing the risk of fragility fracture](http://www.nice.org.uk/guidance/cg146), 2012; National Institute for Care and Health Excellence
* NICE Clinical guideline TA204, [Denosumab for the prevention of osteoporotic fractures in postmenopausal women](http://www.nice.org.uk/guidance/ta204), 2010; National Institute for Care and Health Excellence
* SIGN 142, 2015. Management of Osteoporosis and the prevention of fragility fractures. A national clinical guideline. Available at: <http://sign.ac.uk/pdf/SIGN142.pdf>
* NICE Clinical Guideline CG161, Falls in older people: assessing risk and prevention, 2013. National Institute for Care and Health Excellence http://www.nice.org.uk/guidance/cg161

The TAs listed above are currently under review. Expected publication date for a new Multi Technology Appraisal is November 2015. **4.2 Applicable standards set out in Guidance and/or issued by a competent body (e.g. Royal Colleges)** * Effective Secondary Prevention of Fragility Fractures: Standards for Fracture Liaison Services, 2014. Available at: <http://www.nos.org.uk/document.doc?id=1941>
* National Osteoporosis Society, 2012. Breaking Through: Building Better Falls and Fracture Services in England. London: National Osteoporosis Society. Available at: <http://www.nos.org.uk/document.doc?id=987>
* Royal College Physicians recommends that commissioners use the Department of Health prevention package to inform the commissioning of effective falls and fracture services. See Objective 2 in *Falls and Fractures: Effective interventions in health and social care* at

<http://www.laterlifetraining.co.uk/wp-content/uploads/2011/12/FF_Effective-Interventions-in-health-and-social-care.pdf>* International Osteoporosis Foundation, Capture the Fracture – global campaign to break the fragility fracture cycle. Available at: <http://www.iofbonehealth.org/capture-fracture>
* British Orthopaedic Association, 2007. The Blue Book: The Care of Patients with Fragility Fractures. London: British Orthopaedic Association. Available at: <http://www.fractures.com/pdf/BOA-BGS-Blue-Book.pdf>
* Blue Book Standard 5 – All patients presenting with fragility fracture should be assessed to determine their need for antiresorptive therapy to prevent future fractures.
* Blue Book Standard 6 – All patients presenting with a fragility fracture following a fall should be offered multidisciplinary assessment and intervention to prevent future falls.

**4.3 Applicable local standards****[Insert agreed local standards here]** |
| 5. Applicable Quality Requirements and CQUIN Goals |
| **5.1 Applicable Quality Requirements (See Schedule 4 Parts [A-D])****[Insert agreed local quality requirements here]****5.2 Applicable CQUIN goals** **[Insert agreed local CQUIN goals here]** |
| 6. Location of Provider Premises |
| The provider’s premises are located at:**[Add local information here]** |

**Acknowledgements**

This document was developed from a number of service specifications published by NHS organisations with existing fracture liaison services.

The National Osteoporosis Society is grateful to members of the FLS Implementation Group for their kind assistance.

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i Office of National Statistics, 2014. *Annual Mid-year Population Estimates, 2013*. Available at: <<http://www.ons.gov.uk/ons/rel/pop-estimate/population-estimates-for-uk--england-and-wales--scotland-and-northern-ireland/2013/stb---mid-2013-uk-population-estimates.html>>.

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[i] Health and Social Care Information Centre, 2013. *Hospital Episode Statistics, Admitted Patient Care, England 2012-13. Primary Diagnosis (4 character detail, FCE Bed Days)*.  Available at: <<http://www.hscic.gov.uk/catalogue/PUB12566>>.

[ii] ISD Scotland, 2014. *(SMR01) Hip fracture statistics 2012-2013 (primary diagnosis, 4 character detail, provider, episodes)*. [Freedom of Information request, Extracted 20th August 2014].

[iii] NHS Wales, 2013. *Patient Episode Database for Wales: Primary Diagnosis (4 character detail), Welsh Providers, FCEs 2012/2013*.  Available at: <<http://www.infoandstats.wales.nhs.uk/page.cfm?pid=41010&orgid=869>.

[iv] Department of Health, Social Services and Public Safety, Northern Ireland, 2014. *Hospital Inpatient System 2012/13 (primary diagnosis, 4 character detail, admissions)*. [Freedom of Information request, Received 6th August 2014]. [↑](#endnote-ref-2)
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[v] NHS Wales, 2013. *Patient Episode Database for Wales: Primary Diagnosis (4 character detail, FCEs), Welsh Providers* [2012/2013 and 2011/2012 data tables].  Available at: <<http://www.infoandstats.wales.nhs.uk/page.cfm?pid=41010&orgid=869>>.

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