

Appendix C.

Fracture Liaison Service Database Annual Report (2024)

Improved FLS identification with gaps in monitoring: a call to action for national and regional planners.

Appendix C: FLS-DB dataset for use from 01/01/2024

Lite dataset coding key

Red: mandatory questions

Green: lite dataset questions

Blue: non-mandatory questions

Purple: NHFD fields

Question	Answer options	Provisional help notes	Why changed
Patient identification			
1.01 NHS Number (mandatory)	-----	<p>The field will accept valid NHS Numbers, which are 10 numeric digits long.</p> <p>You should enter this as '1234567890'</p> <p>Currently, please avoid using spaces, dashes or the 3-3-4 format.</p> <p>For patients residing outside the UK, please use the word: 'Overseas'.</p> <p>Patients must be over 49 and under 111 years of age.</p>	Needed for CROWN
1.02 Date of birth (mandatory)	--/--/---	In DD/MM/YYYY format.	Age inequality
1.03 Sex (mandatory)	<input type="radio"/> Male <input type="radio"/> Female		Sex inequality

1.04 Post code at time of fracture (mandatory)	-----	Of usual residence at time of fracture. If patient is admitted from: 'Holiday residence', use patient's home postcode 'Respite care', use patient's home postcode If fall occurs during acute hospital care or inpatient rehabilitation, then record their home post code. If the patient has no fixed abode, enter 'NFA'.	Deprivation inequality
1.05 Care-home resident at time of fracture	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't know	Care-home resident is a person who lives in a residential or nursing home but not in sheltered housing.	Care inequality
1.06 Date of first FLS contact	--/--/--	In DD/MM/YYYY format; please specify the first date the FLS attempted to contact the patient; this could be via letter, face to face, or telephone.	
1.07 Date of FLS assessment	--/--/--or <input type="radio"/> Patient did not attend/declined <input type="radio"/> Patient died before assessment <input type="radio"/> Patient out of area	In DD/MM/YYYY format; 'patient out of area' is to be selected for patients who have been identified, but for no further assessment etc. was completed because they were out of commissioned area (Section 2 onward blanked out).	KPI 4
1.08 Admitted to hospital	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Already an inpatient <input type="radio"/> Don't know	This is a direct admission into a hospital bed as a result of this fracture, at the time of the fracture diagnosis. Later elective admissions are not included. Includes admissions to medical assessment units or day-case equivalent.	
1.09 Index Fragility Fracture(s) that led to FLS contact: date diagnosed (mandatory)	--/--/--	In DD/MM/YYYY format; please use the date on the X-ray when the fracture was first diagnosed. The diagnosis does not need to have been done by an FLS staff member.	
1.10 Index Fragility Fracture(s) that led to FLS contact: type of fracture	<input type="radio"/> Fragility <input type="radio"/> Atypical	Presume fragility fracture if it was unwitnessed and the patient has any form of cognitive impairment. From 01/01/2020, we no longer collect information regarding periprosthetic and 'other' fracture types to maintain the FLS focus on fragility and atypical fractures.	

1.11 Site of first fracture: bone/joint (mandatory)	<input type="radio"/> Hip <input type="radio"/> Spine <input type="radio"/> Wrist <input type="radio"/> Humerus <input type="radio"/> Pelvis <input type="radio"/> Other	This question refers to the presenting fracture.	
1.12 Site of second fracture: bone/joint	<input type="radio"/> Hip <input type="radio"/> Spine <input type="radio"/> Non-hip/non-spine	This question is only relevant if the patient presents with multiple fractures; prioritize the fractures as hip>spine>non-hip/non-spine.	
1.13 Site of third fracture: bone/joint	<input type="radio"/> Hip <input type="radio"/> Spine <input type="radio"/> Non-hip/non-spine	This question is only relevant if the patient presents with multiple fractures; prioritize the fractures as hip>spine>non-hip/non-spine.	
2. Investigation of bone health			
2.01 At time of index fracture, patient on/taking bone-sparing therapy (tick all that apply)	<input type="radio"/> No <input type="radio"/> Don't know <input type="radio"/> Alendronate <input type="radio"/> Risedronate <input type="radio"/> Ibandronate <input type="radio"/> Etidronate <input type="radio"/> Raloxifene <input type="radio"/> Teriparatide <input type="radio"/> Strontium <input type="radio"/> Denosumab <input type="radio"/> Systemic oestrogens <input type="radio"/> Systemic oestrogen & progesterone <input type="radio"/> Calcitriol <input type="radio"/> Alfacalcidol <input type="radio"/> Zoledronate <input type="radio"/> Romosozumab	<p>A patient is to be considered as 'on/taking bone sparing therapy' if:</p> <ul style="list-style-type: none"> • For oral-osteoporosis agents, these were prescribed during the previous 4 weeks. • For zoledronate, prescribed during the previous 12 months • For denosumab, prescribed during the previous 6 months. • For teriparatide, prescribed during the previous 7 days. <p>If unsure as to the type of hormone replacement therapy (HRT), please select 'Systemic oestrogen & progesterone'.</p> <p>Calcium and vitamin D supplements are not included.</p>	
3. DXA section			

3.01 DXA	<input type="radio"/> Ordered <input type="radio"/> Recommended <input type="radio"/> Done during past 36 months, unless change in bone health risk factors <input type="radio"/> Not ordered	'Ordered' means ordered to be done; this includes when someone else has ordered a DXA. 'Recommended' means the DXA has been recommended but has not been ordered. Once the DXA has been ordered, please select ordered.	
3.02 Reason DXA not ordered	<input type="radio"/> Declined <input type="radio"/> Not appropriate <input type="radio"/> Not available <input type="radio"/> Referred to GP <input type="radio"/> Referred elsewhere <input type="radio"/> Don't know	'Not available': DXA machine was not available. 'Not appropriate': includes the following reasons: DXA scan not indicated; DXA scan contraindicated; previous DXA scan.	
3.03 Date of DXA	__/__/__ or <input type="radio"/> Patient did not attend	In DD/MM/YYYY format.	
3.04 Lowest T score		-10.0 to +10.0 Lowest T score (of the average) of lumbar spine, total hip, femoral neck or distal radius.	
3.05 Was the patient's risk of fracture assessed using FRAX or Q-Fracture?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Not applicable	'Not applicable' is only relevant to following patients: FRAX: patients over 90 years of age. Q-Fracture: patients over 84 years of age.	
4. Initiation section			
4.01 Bone therapy recommended following index fracture (tick all that apply) (mandatory)	<input type="radio"/> Inappropriate <input type="radio"/> Don't know <input type="radio"/> Informed decline <input type="radio"/> Referred to GP to decide prescription <input type="radio"/> Referred for further clinical opinion <input type="radio"/> Alendronate	Please note that this question is asking whether a bone therapy was recommended. It does not need to be prescribed by the FLS. Please select all that apply. Teriparatide includes biosimilars.	

	<ul style="list-style-type: none"> <input type="radio"/> Risedronate <input type="radio"/> Ibandronate <input type="radio"/> Raloxifene <input type="radio"/> Teriparatide <input type="radio"/> Strontium <input type="radio"/> Denosumab <input type="radio"/> Zoledronate <input type="radio"/> Systemic oestrogens <input type="radio"/> Systemic oestrogen & progesterone <input type="radio"/> Calcitriol <input type="radio"/> Alfacalcidol <input type="radio"/> Romosozumab 	<p>Calcitriol and alfacalcidol are activated forms of vitamin D and should not be confused with usual vitamin D supplements.</p> <p>'Informed decline': when the patient chooses to decline the treatment offered.</p>	
4.02 Calcium/vitamin D supplement recommended following index fracture	<ul style="list-style-type: none"> <input type="radio"/> Inappropriate <input type="radio"/> Don't know <input type="radio"/> Informed decline <input type="radio"/> Referred to GP to decide prescription <input type="radio"/> Referred for further clinical opinion <input type="radio"/> Calcium and vitamin D combined <input type="radio"/> Vitamin D only <input type="radio"/> Calcium only 	<p>'Inappropriate' should be selected when it is clinically inappropriate to recommend calcium replete from dietary sources and/or vitamin D for this patient; for example, the patient is already taking calcium and/or is vitamin D replete.</p>	
5. Falls risk assessment and outcome			
5.01 Was a falls risk assessment performed?	<ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Not recorded <input type="radio"/> Referred for formal medical-led falls clinic assessment 	<p>'Yes' includes as part of inpatient review, outpatient FLS and a falls assessment. The assessment does not need to be performed by the FLS.</p> <p>As described by the facilities audit data.</p> <p>If patients are screened and then referred on, select yes in 5.01 complete 5.02–5.09 and then select falls referral in 5.10.</p>	

	<ul style="list-style-type: none"> <input type="radio"/> Referred for formal therapy-led falls clinic assessment <input type="radio"/> Falls assessment recommended in non-FLS primary care <input type="radio"/> Currently under falls service <input type="radio"/> Patient did not attend falls assessment 	<p>If all patients are all referred to a separate falls service then select 'Referred for...'</p> <p>'Recommended in primary care' means primary care services that are not involved in the FLS.</p> <p>Select 'no' if falls assessment is not done and not recorded or if may have been done but not recorded</p> <p>'A medical-led falls clinic' is a falls service primarily delivered by a hospital consultant.</p> <p>'A therapy-led falls clinic' is a falls service primarily delivered by specialist practitioners, including specialist nurses and/or allied health practitioners.</p> <p>'Currently under falls service' means active management, not discharged.</p>	
<p>If yes, is there evidence in the patient notes of the following: <i>If you answered 5.01 as yes, please go to 5.02.</i> <i>If you answered 5.01 as no, please go to 5.10.</i></p>			
<p>5.02 2 or more falls in the past 12 months?</p>	<ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Not recorded 		
<p>5.03 Fear of falling at time of assessment?</p>	<ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Not recorded 	<p>Any formal record of fear of falling, anxiety about falls or similar phrasing.</p>	
<p>5.04 Prescription of medication that increase risk of falling prefracture?</p>	<ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Not recorded 	<p>Medication that could increase the risk of falls include psychotropics (eg benzodiazepines and tricyclic antidepressants); antihypertensives (eg diuretics and beta blockers); anti-arrhythmics (eg digoxin); sedating antihistamines (eg chlorphenamine); sedating analgesia (eg codeine, morphine).</p>	
<p>5.05 Prefracture mobility</p>	<ul style="list-style-type: none"> <input type="radio"/> Freely mobile without aids 		

	<ul style="list-style-type: none"> <input type="radio"/> Mobile outdoors with one aid <input type="radio"/> Mobile outdoors with two aids or frame <input type="radio"/> Some indoor mobility, but never goes outside without help <input type="radio"/> No functional mobility (using lower limbs) <input type="radio"/> Not recorded 		
5.06 Vision	<ul style="list-style-type: none"> <input type="radio"/> Abnormal <input type="radio"/> Normal <input type="radio"/> Not recorded 	<p>Any objective assessment acceptable (including basic ability to identify objects and/or read print with glasses on). Solely asking patient if they have eyesight problems would count as 'not recorded'.</p> <p>An abnormal result would be any requiring further investigation or onward referral.</p>	
5.07 Contenance and toileting	<ul style="list-style-type: none"> <input type="radio"/> Abnormal <input type="radio"/> Normal <input type="radio"/> Not recorded 	<p>An assessment of the history and nature of urinary incontinence. An abnormal result could include statements noting presence of a long-term urinary catheter, or urgency, frequency or nocturia.</p>	
5.08 An abnormal cardiovascular assessment result	<ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Not recorded 	<p>An abnormal result would be any requiring further investigation or onward referral.</p> <p>For example:</p> <ul style="list-style-type: none"> • 20 mmHg drop in systolic blood pressure. • 10 mmHg drop in diastolic blood pressure. • an abnormal ECG that requires further management/investigation. 	
5.09 A cognitive impairment	<ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Not recorded 	<p>Answer 'yes' if the patient has a cognitive impairment. Answer 'no' if the patient does not have a cognitive impairment.</p> <p>A standardised assessment of cognitive function, such as the Abbreviated Mental Test Score (AMTS 10) or the Mini Mental State Examination (MMSE) or scored Clock Drawing Test <u>must be documented in the clinical record or, if</u></p>	

		not clinically possible, a specific statement of cognitive ability must be provided. An abnormal result would be any requiring further investigation or onward referral (eg AMTS 4 <4, AMTS 10 <8, MMSE <27).	
5.09a Abbreviated mental test score (AMTS)	<input type="radio"/> .../10 <input type="radio"/> not done <input type="radio"/> patient declined	<p>If answered 'Yes' to question 5.09, please document AMTS score.</p> <p>Please be advised that this is not a mandatory field.</p>	
5.10 Referrals: tick all that apply	<input type="radio"/> Falls clinic <input type="radio"/> Strength and balance exercise programme <input type="radio"/> Home hazard assessment <input type="radio"/> Vision assessment and referral <input type="radio"/> Medication review with modification <input type="radio"/> Referred to other specialist <input type="radio"/> Not appropriate or required <input type="radio"/> Declined <input type="radio"/> Don't know	<p>Select all that apply.</p> <p>'Other specialist' includes: cardiologist, neurologist, continence advisor.</p> <p>'Referrals' relates to all those made following the falls assessment.</p>	
Please note: the follow-up questions are only applicable to patients who were prescribed medication or referred for further clinical opinion or to their GP for a bone therapy.			
6. Follow-up 12–16 weeks post-index fracture			
6.01 Followed up?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Uncontactable <input type="radio"/> Contacted but declined <input type="radio"/> Patient died	<p>This section is only for patients who were recommended bone therapy as a result of the FLS intervention.</p> <p>Follow-up should be 16 weeks post fracture (not 16 weeks post assessment).</p>	

		<input type="radio"/> Late follow-up: if follow-up has been completed, but took place after 16 weeks, please answer 'Yes'. 'No' should only be selected if no follow-up is planned.	
6.02 Date of 16-week assessment	__/__/__		
6.03 Residential status	<input type="radio"/> Own home/sheltered housing <input type="radio"/> Residential care <input type="radio"/> Nursing care <input type="radio"/> Rehabilitation unit: hospital bed in this Trust <input type="radio"/> Rehabilitation unit: hospital bed in another Trust <input type="radio"/> Rehabilitation unit: NHS-funded care-home bed <input type="radio"/> Acute hospital <input type="radio"/> Other <input type="radio"/> Unknown		NHFD linked
6.04 Post-fracture mobility	<input type="radio"/> Freely mobile without aids <input type="radio"/> Mobile outdoors with one aid <input type="radio"/> Mobile outdoors with two aids or frame <input type="radio"/> Some indoor mobility but never goes outside without help <input type="radio"/> No functional mobility (using lower limbs) <input type="radio"/> Unknown		NHFD linked

6.05 Bone protection therapy started	<input type="radio"/> Not started <input type="radio"/> No longer appropriate (clinician) <input type="radio"/> Don't know <input type="radio"/> Informed decline <input type="radio"/> Alendronate <input type="radio"/> Risedronate <input type="radio"/> Ibandronate <input type="radio"/> Raloxifene <input type="radio"/> Teriparatide <input type="radio"/> Strontium <input type="radio"/> Denosumab <input type="radio"/> Zoledronate <input type="radio"/> Systemic oestrogens <input type="radio"/> Systemic oestrogen and progesterone <input type="radio"/> Calcitriol <input type="radio"/> Alfacalcidol <input type="radio"/> Romosozumab <input type="radio"/> Refer for clinical opinion	<p>Please select all that apply.</p> <ul style="list-style-type: none"> <input type="radio"/> If the patient's GP or other healthcare professional stops the bone-sparing drug for whatever reason, please select 'No longer appropriate (clinician)'. <input type="radio"/> Records with a 'Don't know' entry are treated as though not treated. <p>If the patient chooses to never start the recommended drug, please select 'Informed declined'.</p> <p>Teriparatide includes biosimilars.</p>	
6.06 Strength and balance exercise programme started	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't know <input type="radio"/> Not appropriate <input type="radio"/> Informed decline	<p>Please note: only tick 'Yes' for programmes that are delivered by appropriately trained professionals (eg Otago, FaMe, HELP) in line with NICE guidelines.</p>	
7. Follow-up 48–56 weeks post-index fracture			
7.01 Follow-up	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Uncontactable <input type="radio"/> Contacted but declined <input type="radio"/> Patient died		
7.02 Date of 52-week assessment	__ / __ / __		

7.03 Residential status	<ul style="list-style-type: none"> <input type="radio"/> Own home/sheltered housing <input type="radio"/> Residential care <input type="radio"/> Nursing care <input type="radio"/> Rehabilitation unit: hospital bed in this Trust <input type="radio"/> Rehabilitation unit: hospital bed in another Trust <input type="radio"/> Rehabilitation unit: NHS-funded care-home bed <input type="radio"/> Acute hospital <input type="radio"/> Other <input type="radio"/> Unknown 		NHFD linked
7.04 Post-fracture mobility	<ul style="list-style-type: none"> <input type="radio"/> Freely mobile without aids <input type="radio"/> Mobile outdoors with one aid <input type="radio"/> Mobile outdoors with two aids or frame <input type="radio"/> Some indoor mobility but never goes outside without help <input type="radio"/> No functional mobility (using lower limbs) <input type="radio"/> Unknown 		NHFD linked
7.05 Did the patient confirm adherence to prescribed bone-sparing drug?	<ul style="list-style-type: none"> <input type="radio"/> No longer appropriate (clinician) <input type="radio"/> Don't know <input type="radio"/> Informed decline <input type="radio"/> Alendronate 	Please select all that apply. <ul style="list-style-type: none"> <input type="radio"/> If the patient's GP or other healthcare professional stops the bone-sparing drug for whatever reason, please select 'No longer appropriate (clinician)'. 	

	<ul style="list-style-type: none"> <input type="radio"/> Risedronate <input type="radio"/> Ibandronate <input type="radio"/> Raloxifene <input type="radio"/> Teriparatide <input type="radio"/> Strontium <input type="radio"/> Denosumab <input type="radio"/> Zoledronate <input type="radio"/> Systemic oestrogens <input type="radio"/> Systemic oestrogen and progesterone <input type="radio"/> Calcitriol <input type="radio"/> Alfacalcidol <input type="radio"/> Romosozumab <input type="radio"/> Refer for clinical opinion 	<ul style="list-style-type: none"> <input type="radio"/> Records with a 'Don't know' entry are treated as though not treated. <input type="radio"/> If the patient stops the drug by the time of the follow-up, please select 'Informed declined'. <p>Teriparatide includes biosimilars.</p>	
<p>7.06 How many falls has the patient had since the index fracture?</p>	<ul style="list-style-type: none"> <input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 or more 		