Royal College of Physicians

Fracture Liaison Service Database (FLS-DB)

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Starter pack

In association with

British Geriatrics Society
Improving healthcare for older people

British Orthopaedic Association

Royal Osteoporosis Society
Better bone health for everybody

Commissioned by

HQIP
Healthcare Quality Improvement Partnership

Contents

About FLS-DB

The aim of the Fracture Liaison Service Database (FLS-DB) is to improve the quality of life for individuals who sustain a fragility fracture over the age of 50. This includes a bone break after falling from a standing height or less, including no trauma. In England and Wales, around 180,000 of the fractures presenting are as a result of osteoporosis. More than one in three women and one in five men will sustain one or more fractures in their lifetime. The FLS-DB aims to ensure that fracture liaison services throughout the country identify and treat patients to expected national standards.

What is a fracture liaison service?

Adults aged 50 years and over who break a bone after a fall from standing height or less are at high risk of having osteoporosis and, if not treated, their bones will get weaker leading to more serious fractures. A fracture liaison service (FLS) is designed to:

> identify patients
> assess patients
> recommend treatment
> monitor patients in the first year after their fracture
> to improve bone health and reduce falls risk.

This is with the aim to lower their risk of another fracture. Identified patients are risk checked for bone and falls health and managed to lower their risk of secondary fractures. The assessment may include bone density scans (DXA scans and and laboratory tests). The treatment recommendations can include lifestyle advice, calcium and vitamin D repletion, bone medications, and referral to falls prevention services based on national and regional guidance. FLSs bring clear benefits to the patient and the system in the long term and have proven to be clinically cost-effective.
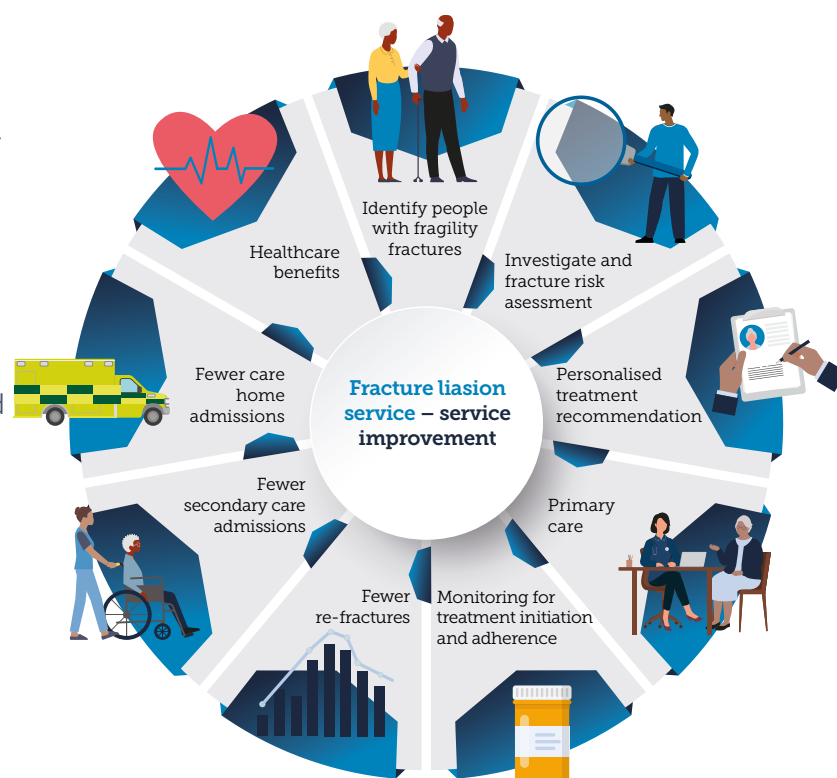
What is the FLS-DB database?

The Fracture Liaison Service Database (FLS-DB) checks the patient journey so local FLSs can:

1. see their current performance in meeting key indicators
2. be guided on what needs to improve
3. check the impact of these changes in their service on patient outcomes.

The FLS-DB is a web-based mandatory national audit of secondary fracture prevention in England and Wales, commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the Falls and Fragility Fracture Audit Programme (FFFAP). Services must have an existing FLS to be eligible to participate. Registration is open for all UK nations.

The FLS-DB collects, measures and reports on the care provided by FLSs. Since it began in January 2016, over 500,000 patient records have been entered by FLSs across the NHS in England, Wales, and Northern Ireland.

Fracture liaison service – service improvement

- Identify people with fragility fractures
- Investigate and fracture risk asessment
- Personalised treatment recommendation
- Primary care
- Monitoring for treatment initiation and adherence
- Fewer re-fractures
- Fewer secondary care admissions
- Fewer care home admissions
- Healthcare benefits

Accessing the FLS-DB

Website access

To get set up on the FLS-DB, a service will need to complete a registration form. Once your service has been set up on the FLS-DB, the team will provide you with access to the website. If further individuals in your service require access to the website, this can be provided by the individual allocated with lead clinician access.

Our resource page includes a user guide which provides guidance on adding new users and helps users to navigate the website.

Key performance indicators

The data collected by the FLS-DB is mapped to the key performance indicators (KPI's), which are based on each part of the patient's journey. The KPI's include:

> **KPI 1: Data completeness** – Services that have a good level of data completeness.

> **KPI 2**: **Non-spine fractures** – Percentage of patient records submitted compared with the local estimated caseload based on a multiple of the number of local hip fracture admissions in the last 12 months. This excludes spine fractures as it's included in KPI 3.

> **KPI 3: Spine fractures** – Percentage of patients with a spine fracture as their index fracture site based on the number of local hip fracture admissions in the last 12 months.

> **KPI 4**: **Assessment within 90 days** – Percentage of patients who were assessed by the FLS within 90 days of their fracture.

> **KPI 5**: **DXA within 90 days** – Percentage of patients who had a DXA ordered or recommended and were scanned within 90 days of fracture.

> **KPI 6**: **Falls risk assessment** – Percentage of patients who received a falls assessment or were referred or recommended for a falls assessment.

> **KPI 7**: **Bone treatment** – Percentage of patients who were recommended anti-osteoporosis medication.

> **KPI 8: Strength and balance by 16 weeks** – Percentage of non-hip fracture patients who had started strength and balance training within 16 weeks of their fracture (in 2016, this was calculated for all fractures. From 2017 onward, it is for hip fractures alone).

> **KPI 9**: **16 week follow-up** – Percentage of patients who were followed up after their fracture.

> **KPI 10**: **Started treatment by 16 weeks** – Percentage of patients who had commenced (or were continuing) anti-osteoporosis medication within 16 weeks of the fracture diagnosis.

> **KPI 11: 1 year drug adherence** – Percentage of patients who had confirmed adherence to a prescribed anti-osteoporosis medication at 12 months post-fracture.

Entering data on the website

Once you have access to the website, services can begin entering their data. Data can be uploaded to the site via direct entry or through a bulk upload using a spreadsheet. There is video guidance available, as well as a document on how to import/export your data. The latest dataset proforma lists the data that services enter on the website.

Before uploading patient records onto the website, ensure that the patient has not opted out of sharing their data for research or planning purposes. Further information regarding this is included in the National Data Opt-out section on page 6.

Dataset categories

The data we request is separated into four categories:

> **Mandatory questions** – questions that must be completed

> **Lite dataset questions** – essential questions required for service KPI's

> **Non mandatory questions** – optional fields not essential for KPI's

> **NHFD fields** – questions related to hip fractures, from the National Hip Fracture Database

Calculating estimated caseload

When a service registers to the FLS-DB Team, an estimated caseload will be added for the FLS by referring to the existing caseload on the National Hip Fracture Database (NHFD). The National Hip Fracture Database captures the number of hip fractures that have been submitted by services throughout the UK. The estimated caseload for each FLS is then calculated by multiplying the number of hip fractures from the NHFD by 5. We then assume 80 % of these are non-spine fractures and 20 % are spine fractures.

Lite dataset

As of January 2024, the FLS-DB has introduced a lite dataset which reduces the burden on services inputting data on the website. The highlighted questions in the lite dataset are needed so the KPI's can be calculated. Until all lite dataset questions are completed the record will be saved as a draft. Please note that all the records in draft and submitted mode are still used for the run charts, benchmarks and our annual report. Records in draft mode still feed into the results where data is complete. This also helps your team to focus on the key fields that need completing to complete the lite dataset for the KPI's.

This dataset reduces the amount of data a service is required to submit, with the aim to increase data completeness, as well as mapping the patient journey for wrist, humerus and pelvis fractures. Improved data completeness will allow more accurate benchmarking for the key performance indicators.

The FLS-DB Team have run an exchange on the lite dataset, which provides a summary of how this impacts services.

Facilities audit

A facilities audit is completed by services approximately once every 2 years. The purpose of this audit is to collect data on the organisational elements of a service. The types of data requested include information on staffing levels, falls protocols, identification of patients and the population the FLS serves. The facilities audit dataset can be found on the website.

National Data Opt-out

The FLS-DB was not granted exemption from the National Data Opt-out (NDOO). Patients in England that do not want their data to be used for research and planning services can opt-out of sharing this data (approximately 6 % on average). Each service must check which patients have opted out; this can be done contacting your information governance team who can identify the patients. These patients must be removed from the FLS-DB site. We have produced guidance for services on how to remove opted-out patients on our website.

How is data fed back to services?

When services input their data, this information is fed back to them via three different methods. This allows services to see what areas of their service need improvements and the progress they are making, thus enabling them to make data driven decisions when making changes to their service.

Run charts

Run charts capture data from each of the KPI's and allow services to identify how they are progressing against all their KPI's and compare it to the national average. An example of the run chart is provided below:

The solid (top) line indicates the number of patients identified by the service, compared to the dotted (bottom) line which identifies the national average. This chart is publicly available to access and is updated every hour using the latest data that has been input by the service. The charts are also available to be exported and downloaded in multiple formats.

To understand how each chart is calculated, we have an 'about this chart' link next to each run chart.

Benchmark table

The benchmark table provides a breakdown of each KPI for each devolved nation, region, and service. This table can be used to identify how each service is performing against all the KPI's. Services can also compare their data to other services and see their progress. You can access the previous year's data by service and region. KPI 11 will not be available until the year following the current year to allow for data entry of the year 1 drug adherence review. For example, under KPI 11 patients who fractured in 2022 will be available to view in benchmarks from January 2024.

View our exchange on how to use the benchmarks table and run charts to make service improvements.

The annual report

The annual report compares the fracture records in one year at the national level for England and Wales and gives recommendations for FLSs and decision makers locally and nationally. These recommendations are designed to support FLSs to improve their service delivery.

The report describes the assessment and treatment of osteoporosis by services registered to the FLS-DB and can be used by healthcare professionals, decisions makers and the wider NHS. Additionally, it is designed to support local commissioners and FLSs to improve post-fracture care delivery from existing FLSs through service improvement and additional commissioning to reduce the number of preventable fragility fractures in this high-risk patient groups. Each report will provide a series of recommendations based on the data provided. The annual report data is based on a full calendar year. Copies of previous reports can be accessed on the FLS-DB website.

Region		Total records submitted	KPI 2 Non-Spine Case identification	KPI 3 Spine fractures	KPI 4 Assessment within 90 days
1. National averages	National	80707	42.1	21	62.8
2. England		75865	45.3	22.7	63
3. Wales		3152	16.8	8	77.8
4. Northern Ireland		1690	31.5	13.3	22.4
East of England		9086	37.5	13.1	75.4
London		8695	36.8	24	54.7
Midlands		14312	43.9	12.6	68.5
North East and Yorkshire		11948	71.8	35.9	55
North West		4646	31.1	20.7	28.9
South East		14886	46.9	23.3	62.9
South West		12292	52.3	38.1	74.5

Using the FLS-DB for service improvements

FLS-DB exchanges

To guide services on how to use the FLS-DB platform, the team run quarterly free webinar sessions, referred to as an FLS-DB exchange. These sessions are delivered by the clinical lead of the audit and supported by the FLS-DB Team. During these sessions, we provide support and guidance on different areas of the programme.

The exchanges are uploaded onto our website for services to view. Exchanges are an opportunity to network with other FLSs, and ask the FLS-DB Team and clinical lead any questions. Sessions are advertised on our website and promoted through our newsletters. Previously run exchanges can be viewed on our resource page.
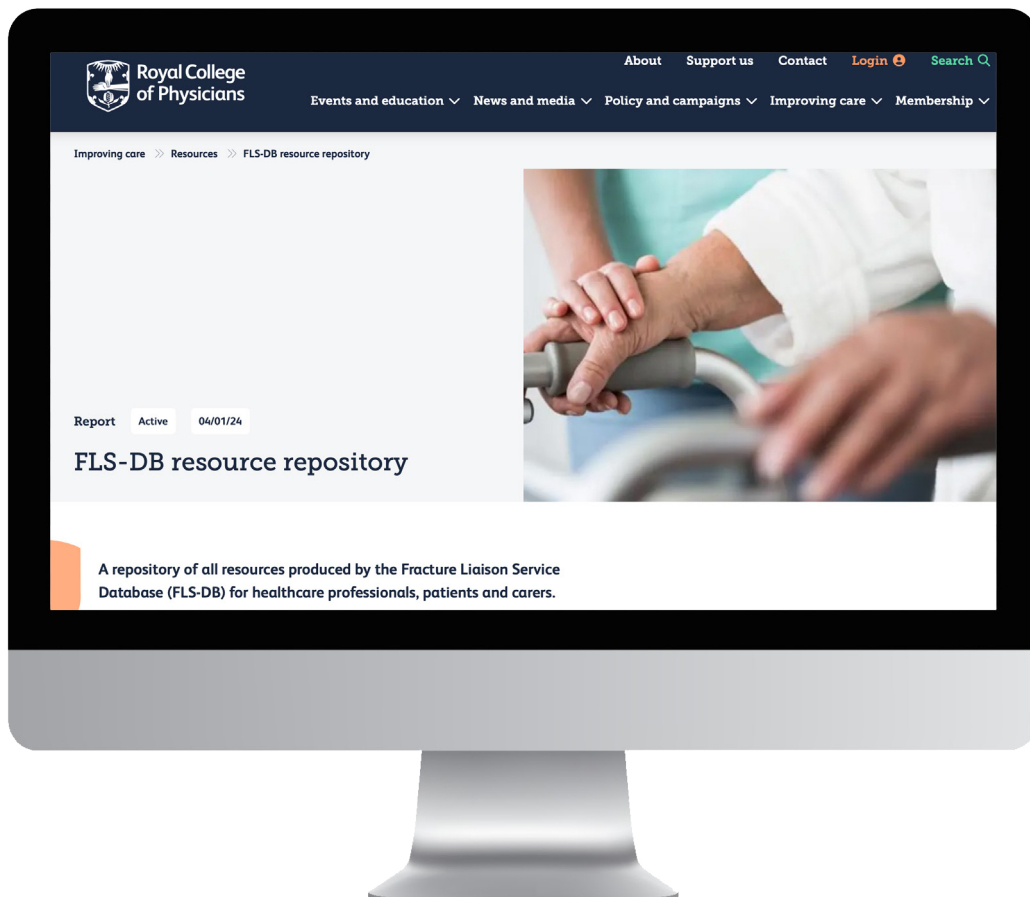
Resources for services and patients

Data entry support

For services that are new to the audit, we would recommend as a starting point to access the below resources:

> Data entry support
> Using the FLS-DB benchmark tables
> FLS-DB is going lite
> National Data Opt-out support session
> FAQ'S
> The latest dataset questions

Services can use the run charts, benchmarks and the FLS-DB annual report to implement improvements within their service. We have produced the following resources for services to use:

> FLS-DB improvement repository
> FLS exchange on service improvements
> How to use FLS-DB data in governance meetings

Patient resources

Patients can utilise our resources to gain further knowledge about the fragility fractures and osteoporosis. The resources we have currently created include:

> **Six golden rules video** – short video intended to encourage patients to have follow-up conversations with their GP after being recommended to take medication by mouth for osteoporosis.

> **What should happen if you or someone you know has a fragility fracture?**

> **Strong bones after 50** – resource that explains what you should expect from your fracture liaison service after you have fallen and broken a bone.

> **Strong bones after 50** – staying on treatment

Overview of FFFAP

The FLS-DB is part of the wider Falls and Fragility Fracture Audit Programme (FFFAP) and is a national clinical audit run by the Royal College of Physicians (RCP) designed to audit the care that patients with fragility fractures and inpatient falls receive in hospital and to facilitate improvement initiatives.

The FFFAP Programme is comprised of the following three workstreams:

> **National Hip Fracture Database (NHFD)** – collects data on all patients admitted to hospital with hip fractures and improves their care through auditing which is fed back to hospitals through targeted reports.

> **Fracture Liaison Service Database (FLS-DB)** – aims to evaluate patterns of assessment and treatment for osteoporosis and falls across primary and secondary care.

> **National Audit of Inpatient Falls (NAIF)** – evaluates both falls prevention activity prior to the hip fracture and post-falls care within acute, community and mental health care.

Patient Carer Panel

The Falls and Fragility Fractures Audit Programme (FFFAP) have a Patient and Carer Panel consisting of a group of 10 patient and carer volunteers. The panel was established in 2018 in partnership with the Royal Osteoporosis Society (ROS) and aims to bring the patient and carer perspective to the FFFAP Programme each of its workstreams. Further information about the panel can be found on our Patient Carer Panel page.

Royal Osteoporosis Society

The FLS-DB Team works closely with the Royal Osteoporosis Society (ROS). They are UK's only charity dedicated to bone health and osteoporosis. Their website provides useful information for both FLS's and patients: https://theros.org.uk

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Get in touch with the FLS-DB team:

Tel: +44 (0)20 3075 1511
Email: flsdb@rcp.ac.uk

www.fffap.org.uk
@RCP_FFFAP
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