Secondary Fracture Prevention: a Fracture Liaison Service Model in Primary Care

Crawley FLS - NHS Crawley Clinical Commissioning Group (CCG)

**SUMMARY** The Crawley NHS Fracture Liaison Service (FLS), based at a GP Practice in the town, serves a population of 120,000 and was established in 2009. The service has been designed to identify and assess those who have suffered a low trauma or fragility fracture, with a view to preventing further fractures, and reducing the costs of fractures to the NHS. The FLS is led by a full-time Specialist Nurse Prescriber with clinical support from a GP with a special interest in osteoporosis. A part-time administrator supports the service for 15 hours a week.

**THE CHALLENGE**

Hip fractures cost the NHS approximately £1.9 billion per annum in hospital costs alone.¹ Half of these occur in people who have previously suffered a fracture.² By identifying and treating patients at risk of osteoporosis in a consistent, systematic way after their first fracture, it is estimated that up to 25% of hip fractures could be prevented.³

**THE SOLUTION**

Fracture Liaison Services - a model in Primary Care

Secondary fracture prevention lies at the heart of the Fracture Liaison Service (FLS) model. Services use a dedicated case worker, often a clinical nurse specialist, to case-find and assess fracture patients. Patients presenting with fragility fractures receive fracture risk assessment and treatment for osteoporosis where appropriate. Cost savings to the NHS are anticipated through a decline in subsequent secondary fractures.

While the original models for Fracture Liaison Services were secondary-care based; an alternative model was developed in primary care in Crawley.

**SERVICE PERFORMANCE**

Case finding

The Specialist Nurse carries out a case finding strategy using monthly reports from X-ray and reports from the local Health Care Trust, together with requests from GPs to identify patients who have had a fragility fracture. Patients are initially contacted by telephone to arrange face-to-face consultations based in their local GP practice. Clinics are scheduled for surgeries on a monthly basis. By using the patient’s primary care health record, the Specialist Nurse can access recent blood test results ensuring that additional tests are only carried out when necessary. Their record may also reveal important information about the causes of the osteoporosis (e.g. steroids) or the drugs that may have precipitated a fall.

The primary care-based service is well placed to respond to non-admitted fractures and vertebral fractures identified opportunistically on X-rays performed for other reasons. They also have an advantage in providing an enhanced service which is able to look for previous fractures in patient records and carry out targeted primary prevention in high risk patients.
Adherence and follow-up
Where needed, a therapeutic agent is initiated (e.g. bisphosphonate or calcium/vitamin D) and reviewed at a second visit where side effects are assessed, treatment modified, additional medication is co-prescribed and important information about the correct way to take treatments can be reinforced to improve treatment persistence and adherence. Review appointments can be by telephone or face to face and home visits can be arranged if necessary. Appointments and follow-up can also be made with patients’ carers, who will often administer medications.

Outcomes and Impact
An audit of care of people with osteoporosis by the FLS using data collected 12 months before and after establishment of the service found that diagnoses of osteoporosis had risen, but that in general the changes seen were evidence of quality improvement (improved data quality for diagnoses, fractures, modifiable risk factors and therapy within 12 months).^4^ Data from the service show that hip fractures in the Crawley Clinical Commissioning Group (CCG) declined steadily over three years from 2012-2015 while these have increased in line with national expectations for an adjacent CCG. The number of hip fractures admitted from care homes in Crawley also decreased from 16% in 2012 to 8% in 2013, compared to a national average of 20%.

COMMISSIONING IMPLICATIONS
There are advantages to a primary care FLS model, which:

- provides care for the majority, releasing secondary care time for complex patients needing consultant input
- offers care conveniently, closer to the patient’s home, (particularly advantageous to the frail and elderly)
- can offer follow up readily to ensure long term management
- can easily be expanded to look for those who may be at risk of osteoporosis who have had a fracture in the past.
- may be better placed to capture people who have suffered vertebral fractures, which often do not present in secondary care settings.

REFERENCES


