**Appendix 4: Step-by-step guide to Fracture Liaison Service development**

**Critical success factors**

The success factors common to the establishment and operation of effective Fracture Liaison Services are provided in the check list below:

* + Establishment of a multi-disciplinary strategy group from project outset
	+ Adequate local access to axial bone densitometry
	+ Appointment of a post-fracture coordinator
		- Delivery of a “one-stop-shop” coordinator-led assessment
	+ Protected time for input from the hospital Lead Clinician in Osteoporosis
	+ Agreement of assessment/management protocols with all stakeholders
	+ Acquisition of an FLS database to underpin communication and audit
	+ Agree specifics of communication mechanism with primary care
	+ Establish referral mechanism from FLS to local Falls Prevention Team
	+ Monitor adherence to management recommendations issued by FLS

**Preparatory work prior to FLS becoming operational**

Establish multi-disciplinary stakeholder group likely to include:

* + The Hospital’s “Lead Clinician in Osteoporosis”

(usually a rheumatologist, endocrinologist, geriatrician or orthopaedic surgeon)

* + Consultant Orthopaedic Surgeon with an interest hip/fragility fracture surgery
	+ Consultant Geriatrician or Ortho-geriatrician
	+ Relevant specialist nurses, physiotherapists and other Allied Healthcare Professionals
	+ Personnel responsible for development/installation of FLS database
	+ Representatives from hospital and primary care medicines management
	+ Representative from local primary care-based service commissioning groups
	+ Representative from local general practice
	+ Representative from local Public Health
	+ Individual to serve as liaison with state musculoskeletal/fragility fracture strategy group

Utilise Plan-Do-Study-Act methodology to plan initial FLS development and cycle of continuous improvement:

* + **Plan**
		- Conduct baseline audit to establish care gap
			* Number of patients over 50 years attending with fragility fracture
			* Proportion of patients over 50 years receiving secondary prevention post fracture
			* Review any data from previous local audits of fragility fracture care
		- Design prototype service to close the management gap
			* Write aims and objectives
			* Identify how you will capture fracture patients
			* Write protocols for wards and fracture clinics
		- Ensure algorithms and protocols are agreed before FLS clinics are in place
		- Agree all documentation and communication mechanisms
		- Develop business case
		- Engage hospital management and/or healthcare commissioners to fund pilot phase
	+ **Do**
		- Implement prototype service model
		- Collect audit data throughout pilot phase
	+ **Study**
		- Analyse improvement in provision of care from audit
		- Refine prototype service model to improve performance
	+ **Act**
		- Implement changes and monitor performance improvement
		- Repeat PDSA cycle through continuous ongoing audit and review

**Issues to consider when FLS is operational**

Patient identification:

* + Ensure FLS notified of all patients admitted by
		- Attending wards to see patients admitted with fragility fracture
		- Attending orthopaedic/trauma team meetings to discuss patients admitted to wards overnight
		- Attending designated new fracture clinics if operated

Referral pathways:

* + Ongoing evaluation of optimal terms to communicate the role of fracture risk assessment and falls assessment to patients

Communication with patients

* + Evaluate effectiveness of delivery of information regarding lifestyle advice and modifications
	+ Evaluate delivery of treatment recommendations to patients – verbal and written

Compliance with medication

* + Consider options for regular contact with patients to review compliance with therapy

Communication with other specialities

* + Discuss with ward staff and orthopaedic surgeons’ management plans, and discuss and inform input with the multidisciplinary team.
	+ Regular review of appropriate referral pathways to:
		- Metabolic bone clinic
		- Bone densitometry
		- Local falls services, where available
	+ Ongoing evaluation of response to letters sent to colleagues:
		- Metabolic Bone Clinic
		- Local falls services, where available
		- Orthopaedic surgeons

Communication with Primary care

* + Ongoing evaluation of response to letters sent to GPs including information on:
		- Assessment
		- Fracture type
		- Risk factors
		- Blood results
		- Suitable treatment recommendations
	+ Suggest follow-up assessment by GP at 3/6/12 months.
	+ Consider pro-active FLS-led 6 month review of all patients via GP questionnaire and patient questionnaire if appropriate