**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