



FAIR Study – Service Evaluation Registration Guide

Below is a summary of the project which is designed to aid registration of the project as a Service Evaluation in local centres. Additional information can be found in the FAIR Study Protocol.

All collaborating trainees are required to register the project with their local centre and follow trust guidance and policies on data collection and management, including seeking trust Caldicott approval. Please send confirmation that the project has been registered as a Service Evaluation to reece.walker@nhs.net

Project Type

Service Evaluation

Title

Fracture Ankle Implant Review (FAIR) Study - A national multicentre retrospective review of practice in implant choice, fixation methods and outcomes in fixation of the fibula in ankle fractures

Specialty/Service

Trauma and Orthopaedics

Project Supervisor and Project Team Details

Name	Job Title	Specialty	Role within Project (data collection, Supervisor etc)
SpR/Fellow	T&O Registrar	T&O	Project lead
	T&O consultant	Trauma and orthopaedics	Supervising consultant

Background

Ankle fractures are common, accounting for 9% of fractures. Unstable fracture patterns are frequently managed operatively with open reduction and internal fixation (ORIF). In unstable fibula fractures, AO advocate using a lag screw with a one-third tubular neutralisation plate for simple patterns. Where a lag screw cannot be placed, bridging fixation is required.

There may be a biomechanical advantage of locking plates in osteoporotic bone. However, they are expensive and have been shown to have a higher rate of wound complication. There appears to be significant variability in the use of locking plates, particularly in the AO44.B category.

This study aims to evaluate practice across multiple centres in the UK. A secondary objective is to review outcomes and complication rates between different fracture patterns and the fixation method and plate type chosen.

Objective

1. Review fixation methods and plate type used in fibula fixation in ankle fractures
2. Review incidence of complications in fixation of fibula fractures

Inclusion criteria

- Age ≥ 18 yrs old
- Acute ankle fracture involving the fibula – all AO 44 Fractures
- Undergoing fixation of the fibula within 2 weeks of injury
- Operation performed between 1st January 2019 and 31st December 2019

Exclusion criteria

- Delayed fixation, beyond 2 weeks of injury
- Revision fixation (this does not include prior application of a temporising external fixator)
- Periprosthetic fracture
- Pathological fracture (except for osteoporosis)
- Pilon fracture, involving the distal tibia and tibial plafond – AO 43 Fractures
- Associated with a diaphyseal tibia fracture – AO 42 Fractures
- Isolated diaphyseal fibula fracture with no ankle injury

Outcome Measures

- Type of fibula fixation used
- Complications following ankle fracture fixation including: infection, wound breakdown, non-union, implant failure, requirement for further surgery, death

Methodology

Retrospective review of all patients undergoing surgical fixation of an AO44B ankle fracture during the study period. This will include review of trauma database/theatre records/clinical imaging/electronic patient notes/paper notes. *(The local lead trainee should establish the most appropriate method in that trust to identify all eligible patients and collect the data required)*

Method

Retrospective ☒

Prospective ☐

Sampling Technique

Case note review ☒

Computer search ☒

Data Collection Form ☒

Time period to be audited

12 months (1st Jan 2019 to 31st Dec 2019)

Population

[Enter approximate number of cases for time period]

Sample size

All ankle fractures undergoing surgery within defined time period

Data Collection Tool

Research Electronic Data Capture (REDCap). REDCap is a secure online research electronic data capture service designed to capture research data for medical research projects for single or multi-site studies via online tools.