Audit of Fracture Clinic Services: Compliance with BOAST Guidelines

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ABSTRACT

Introduction

The BOAST have set guidlines for patients that needs to be followed when they present at the Fracture Clinic and that needs a strict adherence

Objectives

The aim of our study is to see whether the Fracture Clinic Service Queens Hospital Romford is on strict adherence to BOAST guidline.We also aim to re-audit ensure that is followed through.

Material and methods

We prospectively looked at data of about 50 patients that presented to the Orthopaedic Fracture Clinic at Queens Hospital Romford a questionaire that contains data from clinical records and patient databases covering – demographics(age, sex,fracture type and location),treatment outcomes and complications,frailty service referrals andd imaging used,patient satisfaction surveys,clinic appointment efficiency.A structured survey evaluated patient perceptions regarding cleanliness,staff interaction,efficiency of services,and availabilty of informational materials.

Results

Patients came in from different age groups and with notable fractures with the most frequent been Distal Radius,Radial head,left ankle,malleolus fractures and Total shoulder replacements.Most patients were discharged within 3-4 weeks.Some patient require follow ups upto 3 months post surgery.Delay in imaging and review appoitnment of patients were observed.Majority of cases showed no complication.More that 90% of patient were informed about their porcedure.High satisfaction regarding interaction and efficiency with few concerns about follow up delays.No patient was sent to the frailty pathway despite BOAST recommendations. Delays up to more than 10days post injury were noted.

Conclusion:

There are Gaps in this study that would need a re-audit to ensure strict compliance to BOAST.

1. Introduction

In the late 19th and early 20th centuries, the treatment of fractures was primarily managed by general surgeons with an interest in orthopedics. Specialization in orthopedic surgery began to emerge, with figures like Sir Robert Jones, 1st Baronet, playing a pivotal role. Jones, often referred to as the father of modern orthopedic surgery, was instrumental in advancing fracture treatment techniques and promoting the establishment of dedicated orthopedic hospitals.

The early 20th century saw the establishment of several specialist orthopaedic hospitals in the UK, reflecting a growing recognition of the need for dedicated fracture care. Notable examples include: Harlow **Wood Orthopedic Hospital** (1929) **Winford Orthopedic**

Hospital in Bristol (1930) **Mount Gold Orthopedic Hospital** in Plymouth (1933).These institutions were designed to provide specialized care for patients with musculoskeletal injuries and conditions.

In recent decades, the UK has seen the introduction of Virtual Fracture Clinics (VFCs), which leverage telemedicine to manage certain fractures without the need for in-person consultations. This approach has been particularly beneficial during the COVID-19 pandemic, allowing for continued patient care while reducing hospital visits. Studies have shown that VFCs can be both safe and efficient, though careful implementation is necessary to ensure patient safety[1234]

Our Hospital is a large **teaching hospital** in **Romford** in the London Borough of Havering that is run by **Barking, Havering and Redbridge University Hospitals NHS Trust.**The Hospital treats around 150,000 patients in a year[5] and a large percentage of these patients constitutes of Orthopedic patient. In 2024 we did an audit of patient coming to the Orthopedic Fracture Clinic and to see whether we are compliant with BOAST guidelines

The **primary aim** of this audit was to assess the **compliance of Trauma and Orthopaedics** with **BOAST guidelines** for fracture clinic services, using pre-COVID standards. The evaluation focused on **consultant-led services, availability of imaging, plaster room services, and referrals to physiotherapy**. Over three weeks, data was collected on **50 patients** to measure performance against established clinical benchmarks.

Informed consent was obtained from the patients for this study.

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[1] Wikipedia. (n.d.). *Sir Robert Jones, 1st Baronet*. Available at: https://en.wikipedia.org/wiki/Sir_Robert_Jones,_1st_Baronet [Accessed 10 February 2025].
[2] British Orthopaedic Association. (n.d.). *History of the British Orthopaedic Association*. Available at: https://www.boa.ac.uk/about-us/history-of-the-boa.html [Accessed 10 February 2025].
[3] Wikipedia. (n.d.). *James Hogarth Pringle*. Available at: https://en.wikipedia.org/wiki/James_Hogarth_Pringle [Accessed 10 February 2025].
[4] National Library of Medicine. (2020). *Virtual Fracture Clinics: The current status of telemedicine in fracture management*. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC7407867/ [Accessed 10 February 2025].

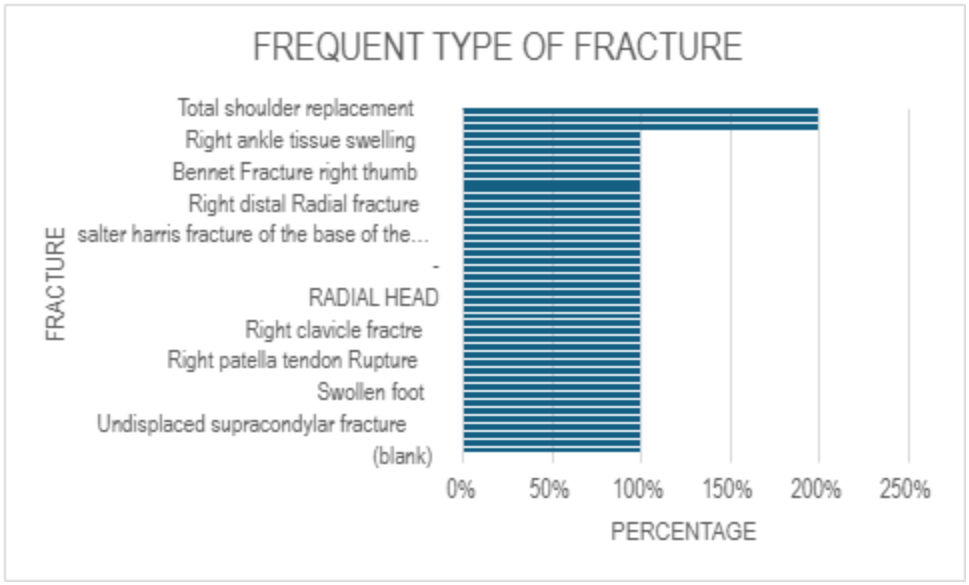
1. [5] *"Barking, Havering and Redbridge University Hospitals NHS Trust - Inspection report" (PDF). Care Quality Commission. Retrieved 4 April 2020.*

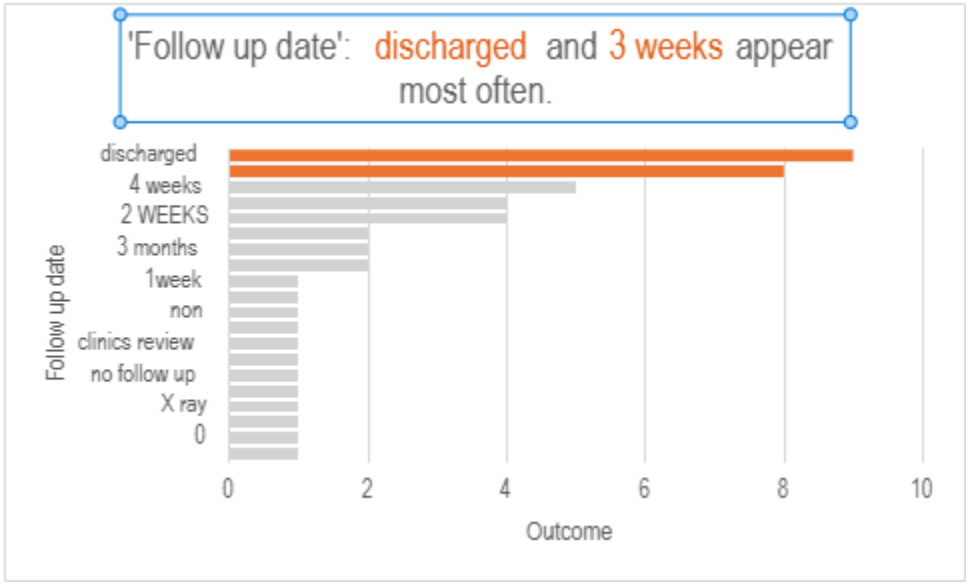
Materials & Methods

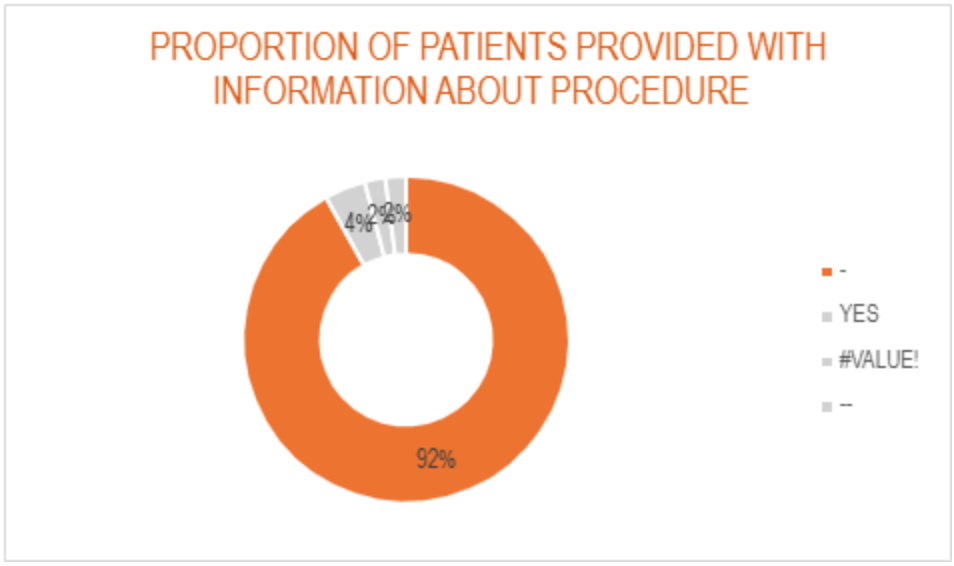
We devised a Questionaire based on BOAST guidelines to collect data from 50 patients with no exclusion criteria.Data were obtained from clinic records and patient databases, covering:Patient demographics (age, fracture type, location),Treatment outcomes and complications,Frailty service referrals and imaging use,Patient satisfaction survey,clinic appointment efficiency.A structured survey evaluated patient perceptions regarding cleanliness, staff interaction, efficiency of services, and availability of informational materials.The most significant drawback was that delays of up to 10+ days post injury were noted.Delays in imaging and review appoitnments were observed..A few cases experienced prolonged recovery due to delayed intervention.Concerns were raised about follow up delays.No patients were referred to frailty services.

RESULTS

Patients ranged across various age groups, with notable trends in fracture prevalence among older adults.The most common fractures encountered are most frequent fractures recorded were Distal radius fractures,Radial head injuries,Left ankle fractures,Malleolus fractures,Total shoulder replacements. The treatment outcomes showed that most patients were discharged within 3-4 weeks.Some required follow-ups up to 3 months post-injury.Delays in imaging and review appointments were observed. The majority of cases showed no major complications.92% of patients were adequately informed about their treatment,high satisfaction were informed about their treatment.No patients were referred to frailty services, Optimized scheduling is needed to expedite care.


FREQUENT TYPE OF FRACTURE
FRACTURE
Total shoulder replacement
Right ankle tissue swelling
Bennet Fracture right thumb
Right distal Radial fracture
salter harris fracture of the base of the...
-
RADIAL HEAD
Right clavicle fractre
Right patella tendon Rupture
Swollen foot
Undisplaced supracondylar fracture
(blank)
0%
50%
100%
150%
200%
250%
PERCENTAGE


'Follow up date': discharged and 3 weeks appear most often.
Follow up date
discharged
4 weeks
2 WEEKS
3 months
1week
non
clinics review
no follow up
X ray
0
0
2
4
6
8
10
Outcome



DISCUSSION

As this was meant to be a closed loop audit. Another re-audit would need to be done to show areas that needed to be improved. The clinic is a Consultant and Registrar led meaning. Each Registrar is tied to a Consultant. In the clinic there are facilities like plaster room,Reception,easy access to the X ray unit ,EPR(Electronic Patient Record),planned admission facilities are also available. All the aforementioned services are in compliance with BOAST guidelines.

There are 3 main areas in this audit that was assessed which can be broadly classified into treatment time from presentation in the Emergency Department, facilities and staffing. There are delays in the waiting time as was experienced by few patients but by re-auditing we will be able to ascertain whether there are improvements in the waiting time.

In terms of staff courtesy, approachability and resourcefulness the patient satisfaction in these domains are highly rated and that comprises the rating on Doctors,Nurses,Receptionist,HCA etc.

On the other hand the facilities like X ray which is at close vicinity to the fracture clinic meaning patients have easy access for imaging. The waiting area have seats readily

available for patients .The Reception area is the initial point of contact for the patients. The receptionist are able to see patients that were booked in for the clinic service for that day.

CONCLUSION

This audit showed a balanced response from the patient vis a vis the facilities,waiting time and staff courtesy but there is still room for improvement which can be achieved by re-auditing.

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