

Length of follow-up and recurrence rates after successful treatment of Monteggia and Monteggia variant fractures in children at the Leeds General Infirmary – A Retrospective Audit.

Christos Konstantinidis¹; Jemma Oberman¹, Zoi Kiourka¹, Laura Deriu¹

1. Department of Trauma and Orthopaedics, Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom

Aims:

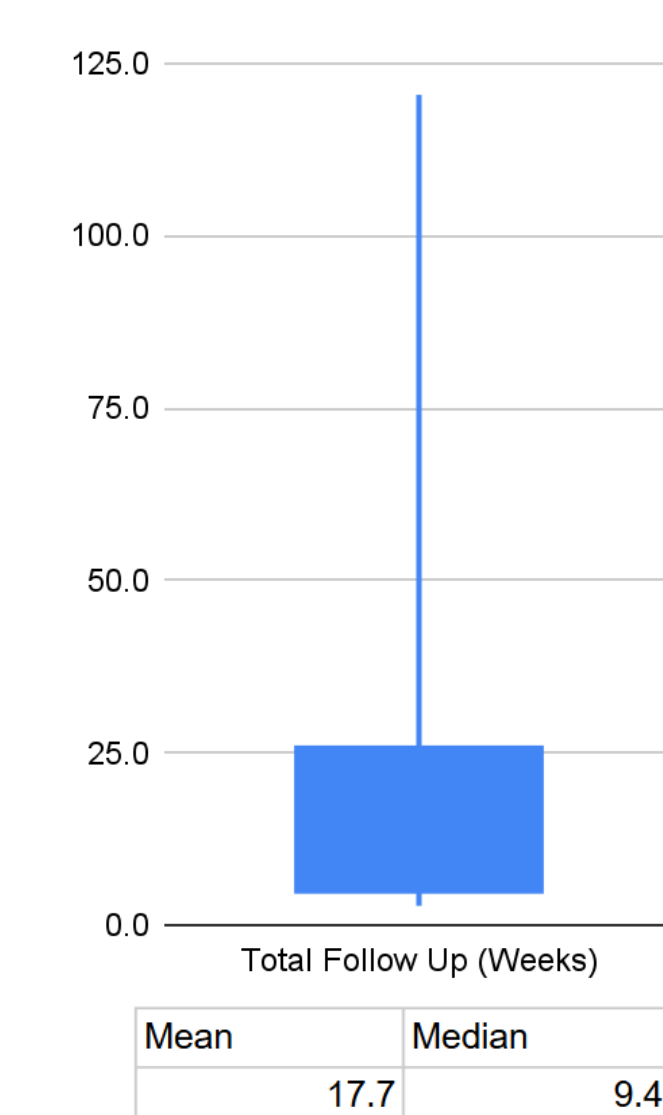
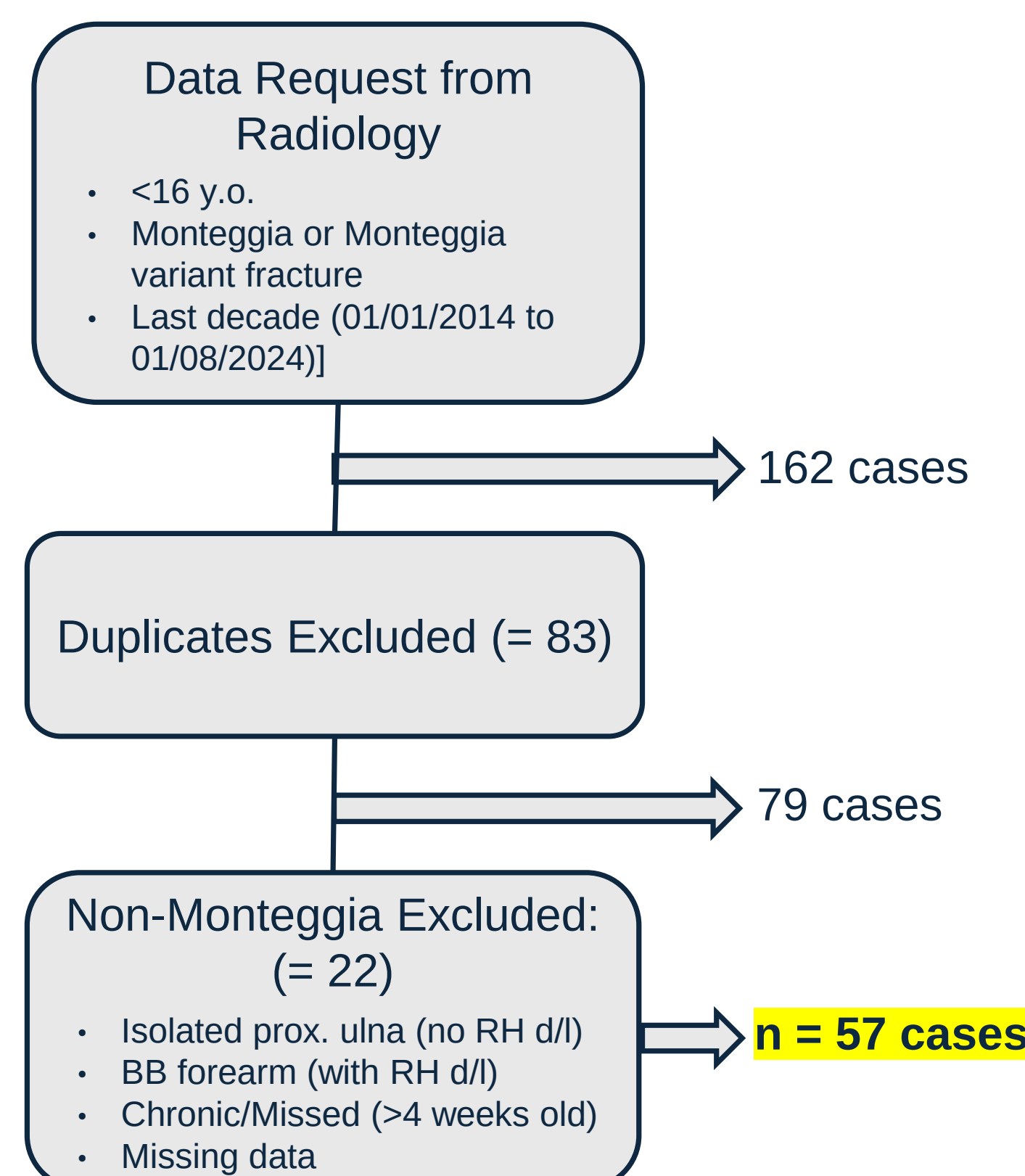
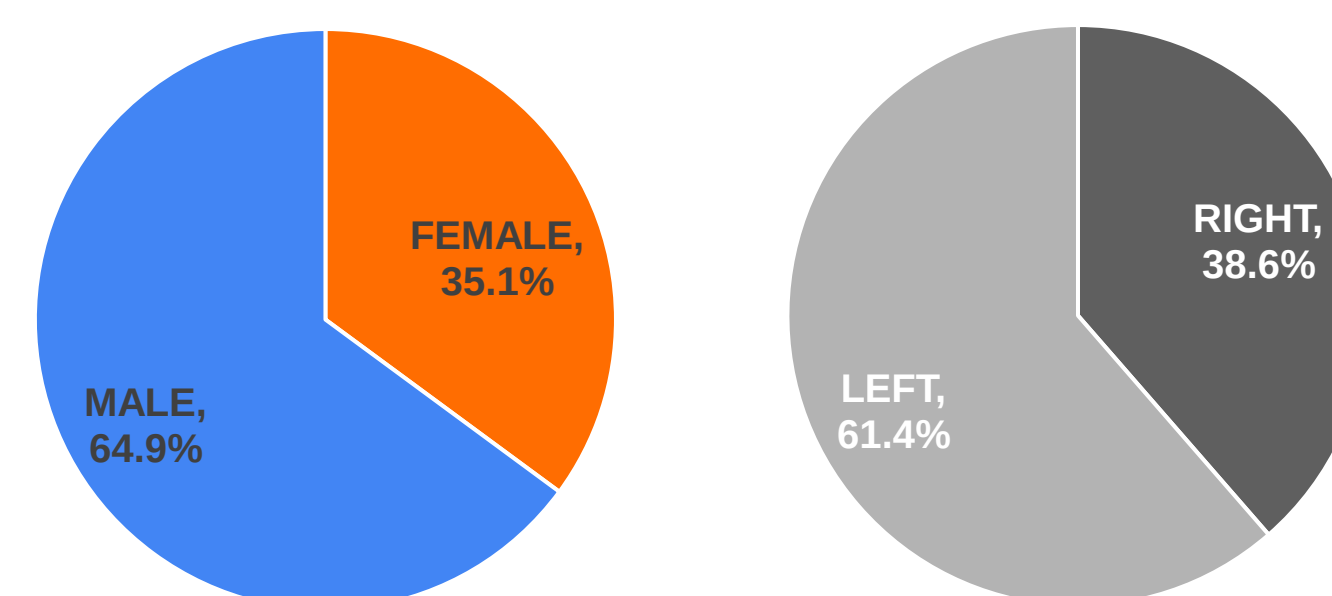
- To evaluate the **current follow-up duration** for **Monteggia** and **Monteggia-variant** fractures in children at Leeds General Infirmary.
- To assess whether **any complications** have been missed due to the length of follow-up.
- There is currently **no nationally standardised guideline** regarding the duration of follow-up **in the UK**.

Methods:

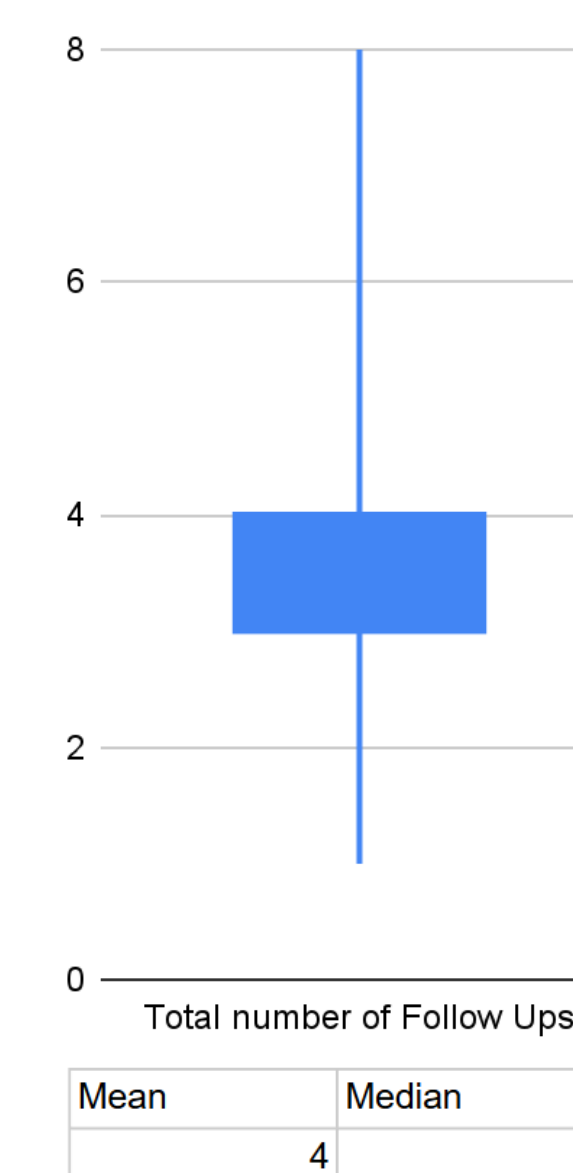
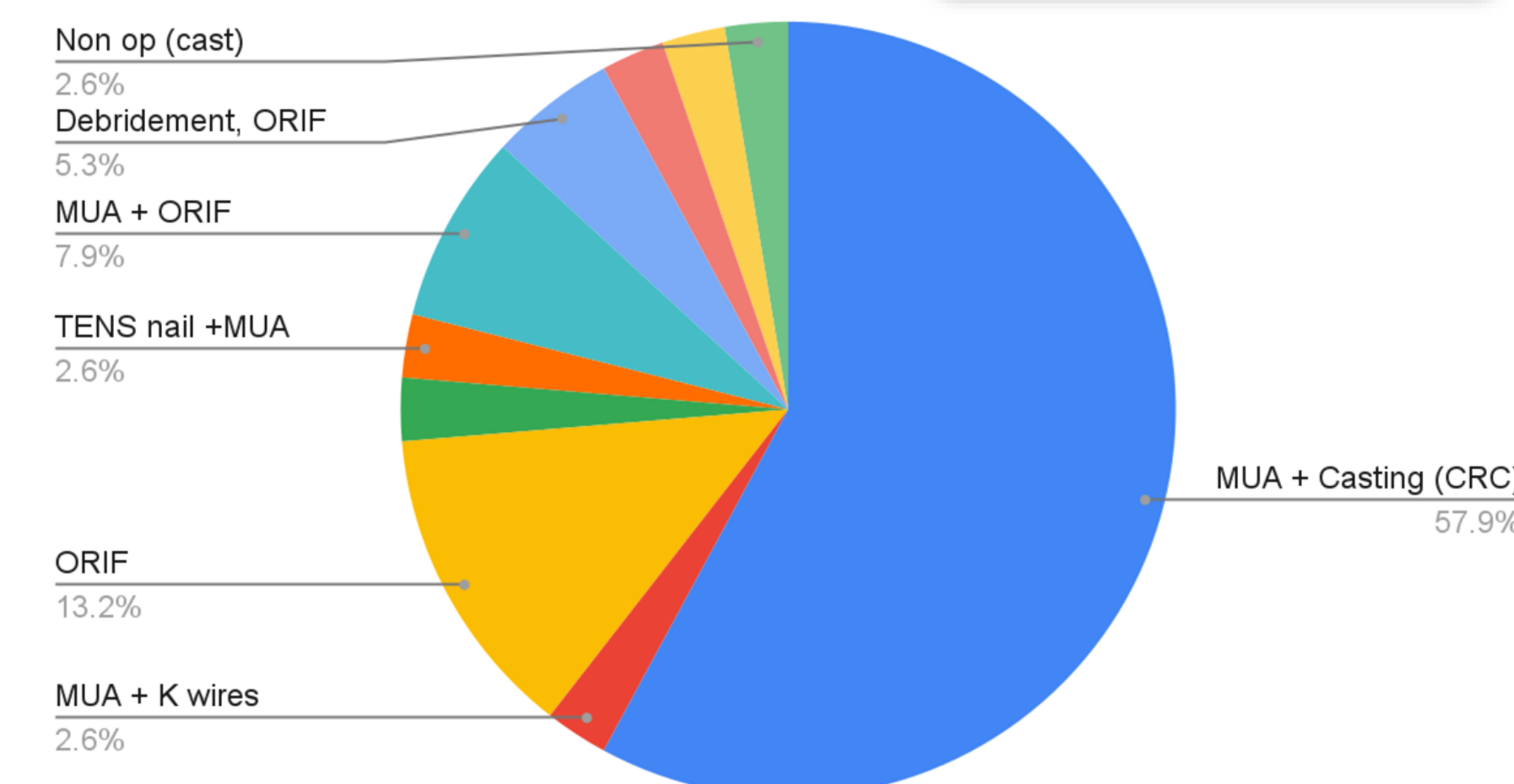
- A local search was conducted.
- Inclusion criteria:** Patients <16 years old presenting with Monteggia or Monteggia variant fracture between 2014-2024, yielding a total of 162 cases.
- Exclusion criteria:** Duplicates, isolated proximal ulna fractures, radio-ulna fractures, fractures more than 4 weeks old, and missing data entries.
- A total of 57 final cases were analysed.**

Results:

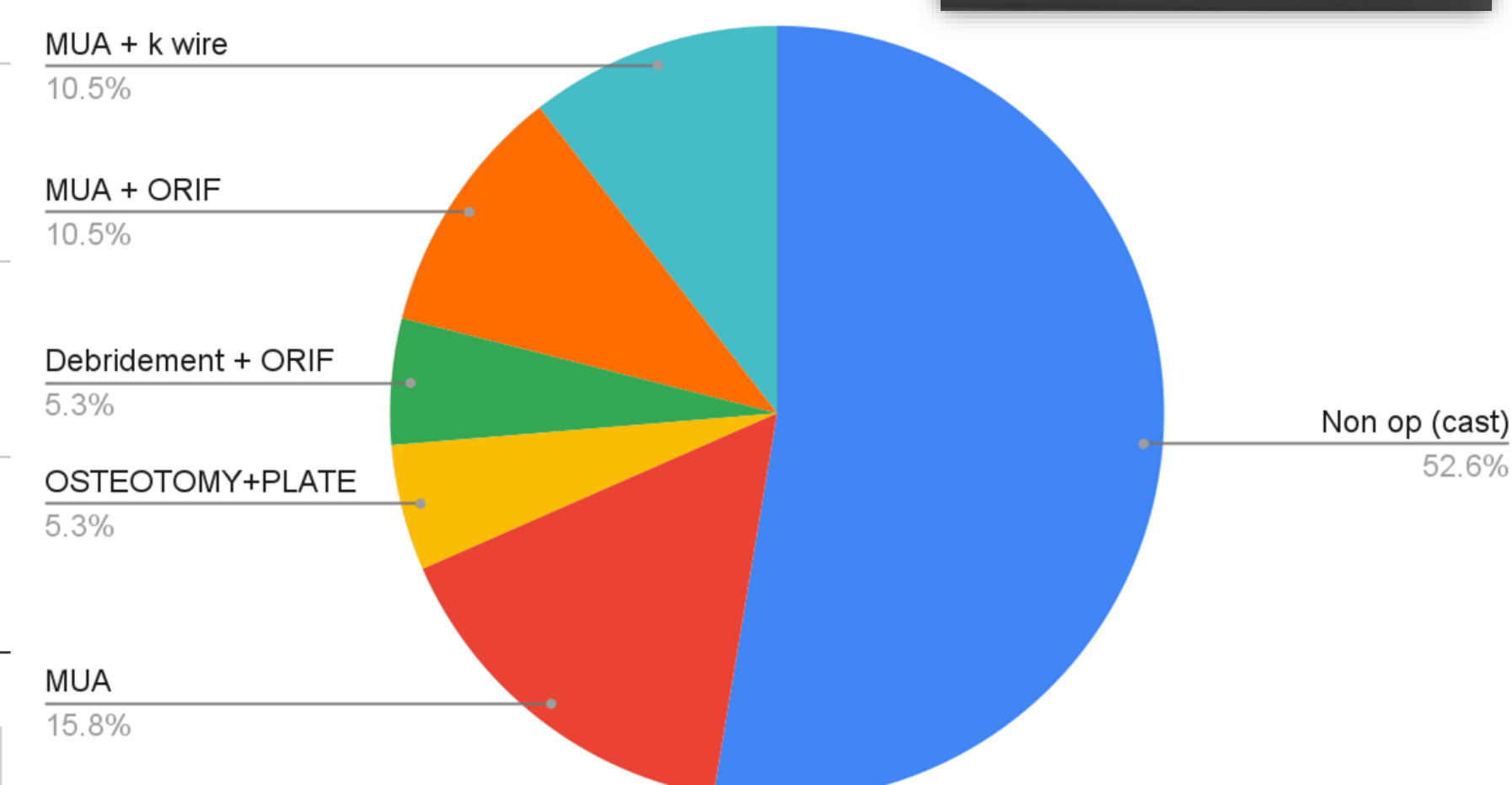
- In our cohort, **37 cases were male (64.9%)** and **20 were female (35.1%)**.
- 35 presented** with **left-sided** Monteggia or Monteggia variant fractures (61.4%) and **22 presented** with **right-sided** injuries (38.6%).
- The majority of cases were Monteggia** rather than Monteggia variant fractures (**66.7% Monteggia, 33.3% Monteggia-variant**).
- In the Monteggia fracture group**, 57.9% of the patients were treated with Manipulation Under Anaesthetic (MUA) and casting, 13.2% with Open Reduction Internal Fixation (ORIF), 7.9% with MUA and ORIF, 5.3% with debridement and ORIF, 2.6% with MUA and TENS nails, 2.6% with MUA and K-wires and 2.6% with non-operative management in a cast.
- In the Monteggia variant fracture group**, 52.6% were treated non-operatively with casting, 15.8% with MUA, 10.5% with MUA + ORIF, 10.5% with MUA + K-wire, 5.3% with Debridement and ORIF and 5.3% with Osteotomy and Plating.
- The mean follow-up duration was 17.7 months**, with a **median follow-up of 9.4 months**.
- The complications** noted during the follow-up included one patient who was found to have a posterior interosseous nerve injury following post-operative compartment syndrome, one patient who was noted to have had a missed radial head dislocation and one patient who presented with a ulna deformity at 2.5 years following injury.
- No complications were missed due to the follow-up period, and we did not identify any recurrences.**



Monteggia Management



Monteggia Variant Management



Conclusion

- This audit demonstrated that the current duration of follow-up at LGI allowed for the monitoring of complications within the allotted time frame.
- There is, however, possibly further scope to create a follow-up plan at the LGI with schedules for appointment times.