TITLE: Immobilisation of torus fractures of the wrist in children (FORCE): a randomised controlled equivalence trial in the UK

Research Question	Is rigid immobilisation equivalent to a tensor bandage in the management of pediatric buckle fractures?	
Bottom Line	It is safe to treat distal radius buckle fractures with the offer of a soft bandage and immediate discharge from the ED.	
Study Summary	***Design***	▪ Multi-centre, randomized, non-blinded, equivalence trial
	Population: Inclusion	▪ Children aged 4-15 years old with distal radius buckle fractures confirmed on x-ray
	Population: Exclusion	▪ Injury more than 36 hours old ▪ Cortical disruption of the radius on x-ray (as determined by the treating clinician) ▪ Additional fractures outside of the affected wrist ▪ Patient or parent unable to adhere to trial procedures (e.g. language barrier, developmental delay, no internet access)
	Intervention	• Rigid immobilization
	Comparison	• Tensor bandage
	Primary Outcomes	▪ Pain on day three, measured using the Wong-Baker FACES pain rating scale ○ No statistically significant difference in pain scores on day 3
	Secondary Outcomes	▪ Functional recovery using the PROMIS (Patient Report Outcomes Measurement System) ○ A patient or parent reported measure of physical function of the upper extremities. ▪ Health-related quality of life outcomes (standardized questionnaire) ▪ Analgesia use and type taken ▪ Missed days of school ▪ Health care resource use ▪ Treatment satisfaction ▪ Complications
Strengths	▪ Randomized ▪ Multi-centre ▪ Patient important outcomes were considered ▪ A validated questionnaire and pediatric pain scoring system was used ▪ Generalizable, with no exclusions made for patients with comorbid disease	
Limitations	▪ Un-blinded ▪ Imbalance in crossover of patients moving from tensor to rigid immobilization group	
Relevant additional reading or comments	• 2018 Cochrane Review: assessed 10 RCT's evaluating the management of buckle fractures, found little impact on patient recovery regardless of the invention, or	

	whether they received follow up vs removed the splint at home. Quality of evidence: felt to be low or very low, more evidence required. Bring on our study!
Citation	Perry et al. Immobilisation of torus fractures of the wrist in children (FORCE): a randomised controlled equivalence trial in the UK. The Lancet. 2022.
Topic Keywords	• Buckle fracture, torus fracture, pediatric, emergency medicine