# Rock, Paper, Scissors, OK?

## Improving Upper Limb Neurology Assessment In Children

#### **BACKGROUND**

In February 2018 it was identified that 25% of children who presented with an upper limb injury were not having any neurovascular deficit documented. The British Orthopaedic Association Standards for Trauma (BOAST) Guidance for supracondylar fractures

state that each of the Median, Ulnar, Radial and Anterior Interosseous Nerves must be individually documented.



To improve documentation of neurovascular status in ALL children who present with upper

limb injuries (ULI) to emergency department (ED) at Ysbyty Gwynedd. To ensure that children who have supracondylar fractures have their neurovascular (NV) status documented in accordance to BOAST guidance.

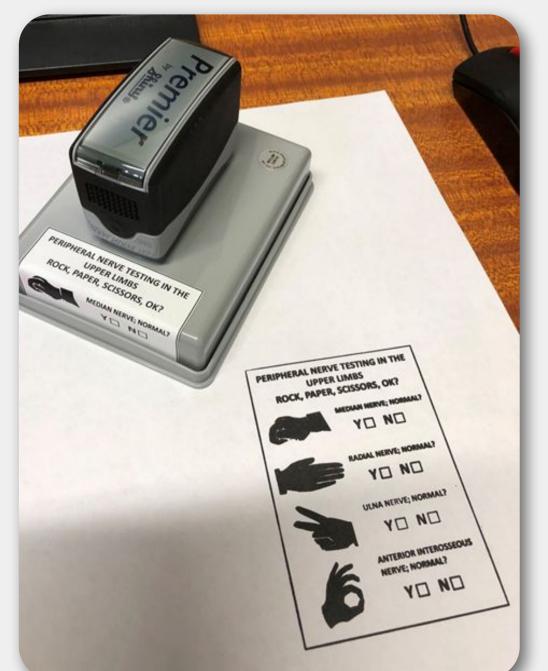


To help improve documentation we introduced an infographic as an education aide memoire.

This infographic was based on the 'Rock, Paper, Scissors, OK?' (RPSOK) game:

- Rock tests the median nerve
- Paper tests the radial nerve
- **Scissors** tests the ulnar nerve
- **OK** tests the anterior interosseous nerve

This was also turned into a stamp, so that it can be added to the notes – this was introduced in April 2018. Staff were educated in the M+M meeting and through shop floor teaching.





#### **RESULTS**

**February 2018:** 95 patients, 71 (75%) having NV Status documented.

May 2018: 202 patients, 183 (90%) having NV status documented. Of which 31 used the RPSOK method (17%).

August 2018: 120 patients, 119 (99%) having NV status documented. Of which 14 (11%) had RPSOK method used.



### **NV Status Documented**

75% → 90% → 99%

February May August

#### CONCLUSION

NV Status documentation has increased significantly to nearly 100%.

Overall the RPSOK method has helped the ED become aware of the need for NV status to be documented.



#### **REFERENCES**

- 1. Dawson AW. Rock-paper-scissors. Injury. 2003 Jan;34(1):61-3.
- 2. Marsh AG, Robertson JS, Godman A, Boyle J, Huntley JS. Introduction of a simple guideline to improve neurological assessment in paediatric patients presenting with upper limb fractures. Emerg Med J. 2016 Apr;33(4):273-7.
- **3.** Babal JC, Mehlman CT, Klein G. Nerve injuries associated with pediatric supracondylar humeral fractures: a meta-analysis. J Pediatr Orthop. 2010 Apr-May;30(3):253-63
- Dr Sarah Edwards (1,2) Principal Investigator & Dr Hannah Lock (3) Data Collection
- 1. Snowdonia Clinical Fellow in EM in Ysbyty Gwynedd (Previous)

drsarahedwards@hotmail.com (Email)

- 2. Education Fellow in EM part of EM3 in Leicester Royal Infirmary, Leicester
- 3. Foundation Doctor FY2 in Ysbyty Gwynedd *(previous)* and current FY3 in Ysbyty Gwynedd







@drsarahedwards (Twitter)







