NEUROVASCULAR INTACT? LET'S BE EXACT

Improving Documentation of Neurovascular Assessments in Children with Limb Injuries

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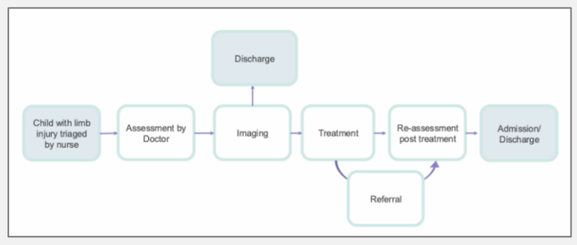
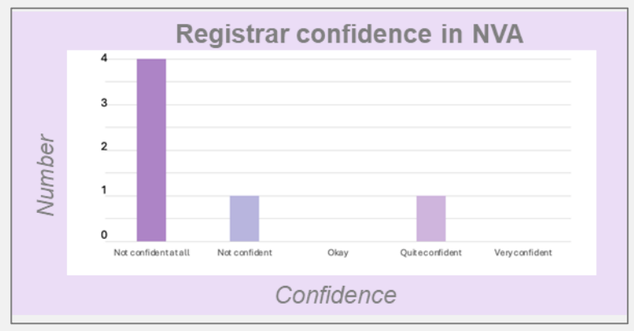
BACKGROUND

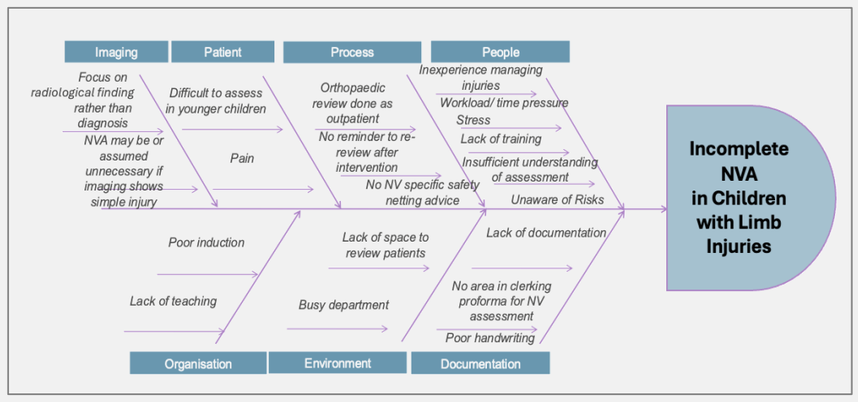
- Busy paediatric Emergency Department (ED) with high injury caseload
- Staffed only by Paediatricians without ED training
- No specific injury or training in performing neurovascular assessment (NVA)
- Virtual fracture clinic, no in-person orthopaedic review before discharge
- Shift to electronic notes, no standardised injury pro-forma

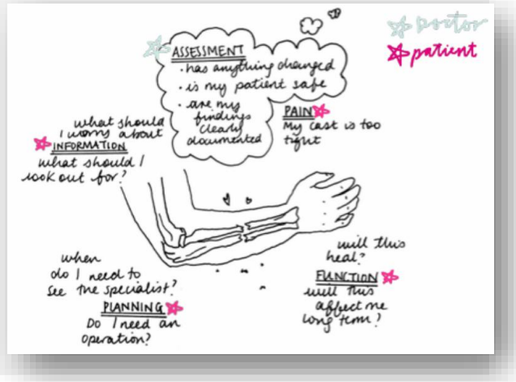
PROBLEM
Assessment of blood flow and nerve function in limb injuries is often poorly documented in ED. Missed problems can lead to permanent limb damage and lifelong disability, with devastating, career-ending consequences for staff.

DIAGNOSTICS





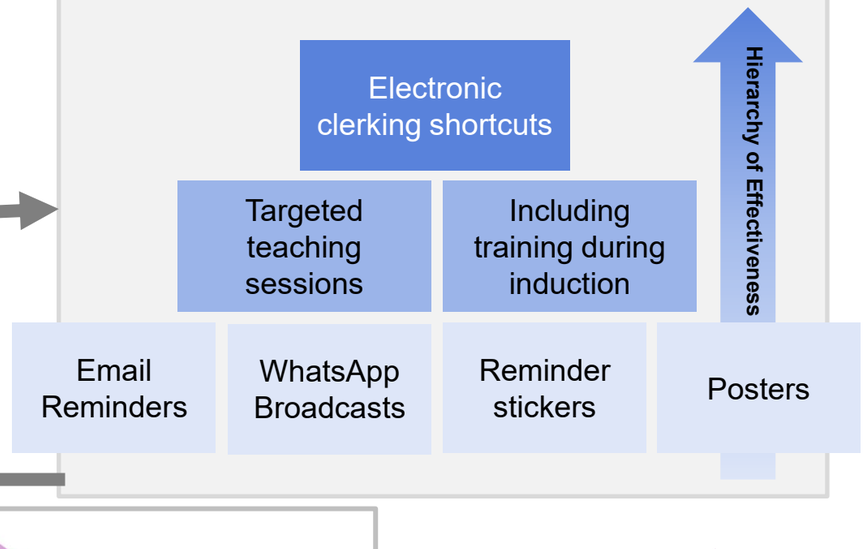




AIM & MEASUREMENT DEFINITION

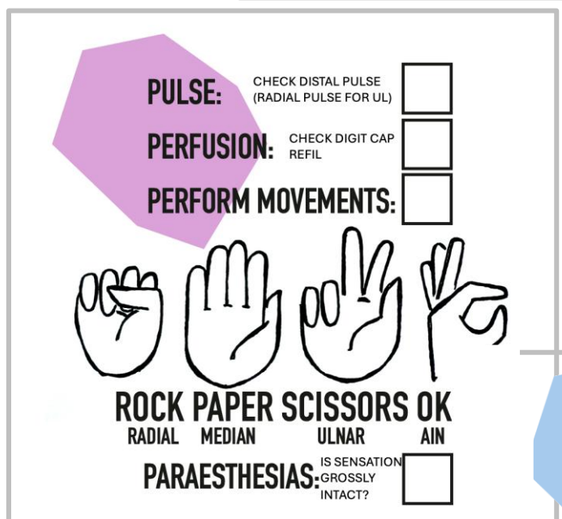
Aim: By August 2025, the number of children presenting with a fracture who have a documented complete neurovascular assessment will be increased from 1/10 to 8/10
Measure: Number of fracture patients with complete documentation
Inclusions: Patients seen in ED with proven Limb Fractures (Upper and Lower Limb incl. Clavicle)
Exclusions: Patients seen first at Epsom and sent to St Helier for Orthopaedic input (Will have been clerked by ED clinicians not paediatricians)
Patients seen directly by Orthopaedics
Sampling method and frequency: Make use of Hospital Audit department to provide weekly electronic lists of patients seen and discharged with these diagnoses

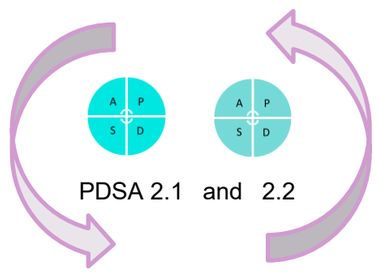
CHANGE IDEAS

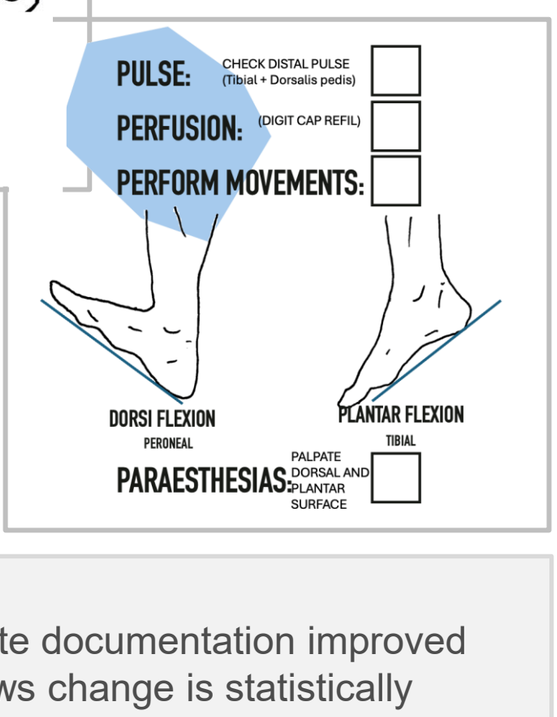


PDSA Cycles

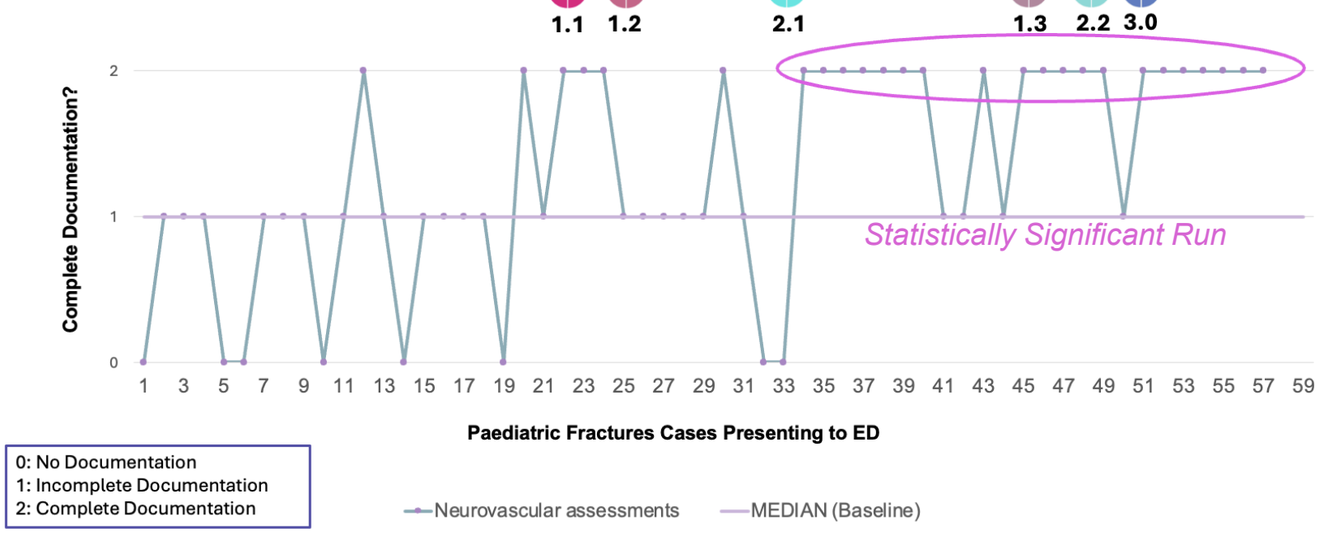
PDSA	PLAN	DO	STUDY	ACT
1.1	**First Teaching session**	Myself: July 25 Gave brief but high yield teaching on What Neurovascular assessments should entail and why, how to perform them and what to document. To mixed skill level doctors at our dedicated Tuesday teaching session	Collected feedback on confidence levels and current practices - Universally Low confidence - Not all colleagues reached by session	**Extend** – Repeat session to cover more staff
1.2	**Second Teaching session**	Myself: July 25 Repeated teaching to include more of my colleagues	Collected feedback from colleagues - Frustration that this is not covered at induction	**Extend and adapt** - Teaching to be given at induction of new team
1.3	**Teaching at Induction**	Colleague: Aug 25 Enlisted Registrar colleague who was giving induction talk to new doctors to give training on clerking of injury patients and NV assessments	Positive feedback from new team Impact on NV assessment in clerking studied	**Extend and again** – Enlist team that are staying on to continue this talk at future inductions
2.1	**Reminder Stickers WhatsApp**	Myself: July 25 Created reminder graphic stickers and distributed them via WhatsApp	Positive response from colleagues, increase in completed assessments	**Extend** – Send stickers via email to include colleagues not on WhatsApp
2.2	**Reminder Stickers Email**	Myself Jul 25: Positive impact after sent out via WhatsApp so repeated by email to include colleagues missed and reinforce to those that had seen before	More colleagues reached but suggested need permanent reminder in department	**Extend & Adapt** – Positive impact: put stickers in a permanently visible place. Maybe include on guideline
3.0	**Electronic Clerking Automation**	Myself August 25: Create complete NV shortcuts that can be easily inputted into clerking to record standardised assessments with ease Shortcuts sent via email to all staff	Impact on whether NV assessments were completed more frequently (Run chart Data)	**Extend** – Continue to encourage new members of the team to use shortcuts







Run Chart



CONCLUSIONS

Success? Aim achieved: Complete documentation improved from 1/10 to 8.3/10, and data shows change is statistically significant and sustained over time
Sustainability: By embedding interventions into induction and sharing ownership hope to promote long-term change

REFLECTIONS & LEARNING

Cultural change takes time: While results show statistical significance, sustaining the change requires ongoing reinforcement and leadership support
Personal growth: Developed skills in QI methodology, data analysis, and leading change in a busy clinical environment
Value of shared ownership: Change cannot be driven by one person - recruit your team early!

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Change CHAMPION