

Neurointensive Care Practice Development Team

“Team working to achieve excellence”

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Background: In 2016 the Neuro ICU Practice Development Team (PDT) undertook a SWOT analysis of our practice area. This identified workforce, operational and environmental challenges that in an ever-changing, complex environment threatened the delivery and sustainability of safe care, the ability to innovate and the future security of the workforce. This also led to the near-failure and disillusionment of the PDT. The 2017 Wessex Quality Improvement Fellowship supported the PDT to explore its role and develop new ways to address these challenges.

PLAN

Having clarified the real problem and desired outcome, the PDT used the following structure to plan the project:

- S** Explored the theory to practice gap and current evidence base for best practice.
- M** Used a range of methodologies to explore practice, evidence base and staff knowledge.
- A** *“Team working to achieve excellence”* vision initially focused on the respiratory system.
- R** Aligned with Trust *“Forward Vision”* and national standards.
- T** Regular reviews and use of a GANTT chart to ensure task allocation and timeline achievements.



DO

To understand the scope of the project the PDT undertook the following:

- A literature review of the current evidence base.
- A review of current local and national competencies and standards.
- A range of qualitative and quantitative audits that explored current practice, staff knowledge and confidence. These were repeated after the delivery of the workshop.
- The planning and delivery of an education workshop to the multi disciplinary team (MDT) working within Neuro-ICU
- Development of a local resource folder and guidelines
- Updates for key stakeholders including immediate colleagues and UHS senior management.



STUDY

- 80 members of staff were trained during 12 workshops in only 6 days.
- Results demonstrated an improvement in bedside safety, delivery in skills for patient care, correct use of equipment and an overall staff confidence in knowledge and skills.
- It was also demonstrated that the workshops were an efficient method of delivering education with equitability in access for the whole MDT.
- Staff evaluated the workshops as a very useful way in both enhancing their knowledge and skills as well as developing a greater appreciation of each specialism of the wider MDT.

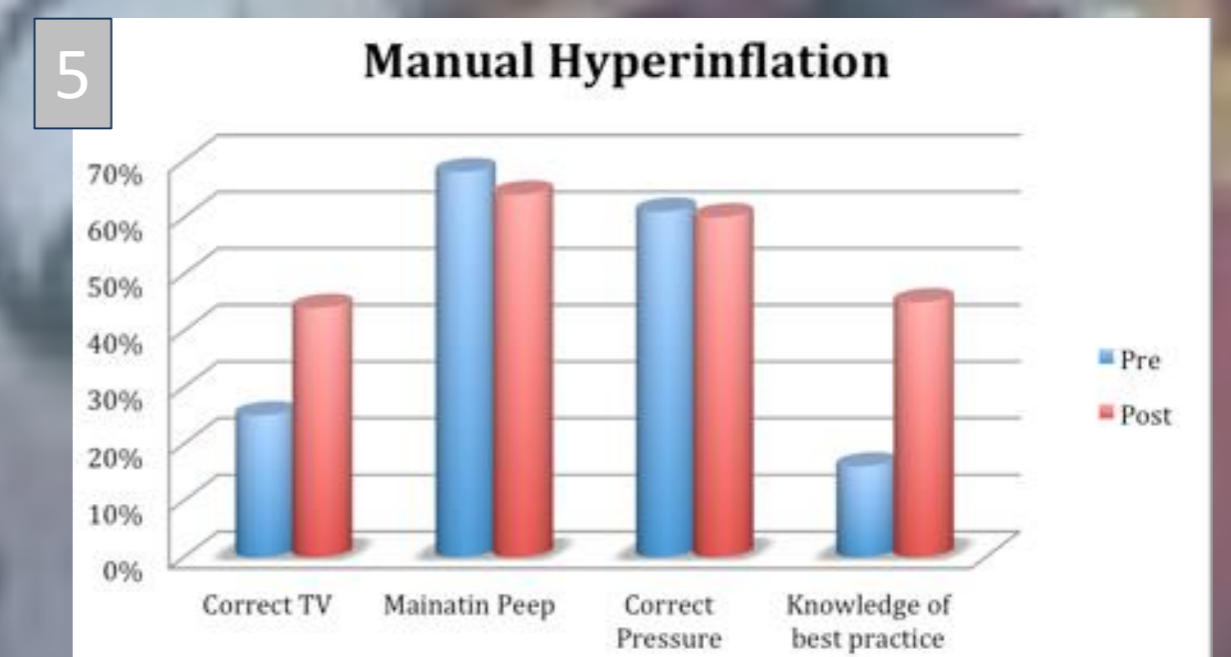
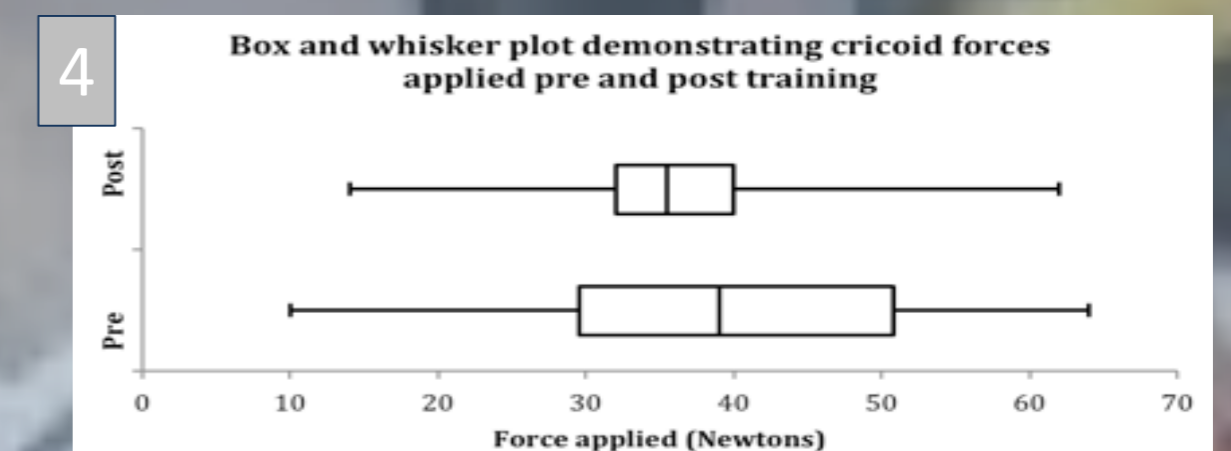
Theory and Team working

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11
1 Band 6	↑	↑↑	↑	↑	↑↑	↑	↑	↑↑	↑	↑	↑
Band 5	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Technician Assistant	↑	↑	↑	↑↑	↑	↑	↑	↑	↑	↑	↑

2 Workshop Evaluation Forms	Scale: 0 (Not useful), 5 (Very useful)					
	N/A	1	2	3	4	5
Anatomy session	0.00%	0.00%	0.00%	1.27%	29.11%	69.62%
Airway station	0.00%	0.00%	0.00%	3.80%	30.38%	65.82%
Equipment	0.00%	0.00%	0.00%	3.80%	24.05%	72.15%
MH/Suction/Positioning station	0.00%	0.00%	1.27%	2.53%	32.91%	63.29%
Scenario Station	0.00%	0.00%	1.27%	3.80%	27.85%	67.09%
Structure of the day	0.00%	0.00%	5.06%	32.91%	62.03%	
Tailored to level of experience	0.00%	0.00%	1.27%	10.13%	39.24%	49.37%
Have you enhanced your knowledge and skills	0.00%	0.00%	0.00%	3.80%	20.25%	74.68%
Did you find the MCQ helpful	10.13%	0.00%	2.53%	10.13%	29.11%	48.10%
Do you think this workshop will have and impact on the quality of care for our patients	0.00%	0.00%	0.00%	1.61%	16.13%	82.26%

Best Practice

	O ₂ cylinder	BVM/Guedels	Mapleson C Circuit	Head Torch	Working suction	O ₂ Flow meter working	Fire exit clear
3 Pre %	78	96	100	100	100	100	100
Post %	98	100	91	100	99	100	100



1: Table showing MDT self-assessment of confidence in 11 areas of respiratory care before and after workshops, 2: Table showing MDT assessment of workshops, 3: Table showing results of bedside safety audit, 4: Box and Whisker plot showing cricoid pressure audit, 5: Histogram showing results of manual hyperinflation training.

ACT

The project demonstrated that as a PDT we were able to deliver an improvement in patient centred care by making it safe, equitable, efficient and effective. This education delivery method complements other education strategies, is replicable for other systems and potentially can be used by other critical care units. The project had limitations on not addressing all the challenges identified in the initial SWOT analysis. Interestingly there appears to have been some evidence in culture change to practice development and team working.

Immediate cost savings have been identified through ventilator tubing usage and future cost saving could show a reduction in staff turnover, reduced length of stay and reduction in costs associated with ventilator associated pneumonia.

Conclusion: The new knowledge gained during the Quality Improvement Fellowship has allowed the PDT to facilitate *“Team working to achieve excellence”* in key components in respiratory care, allowing bridging of the theory to practice gap and delivering the best evidence based practice. The knowledge and techniques learnt including the PDSA cycle will form the basis of further system based education modules and ensure a continued approach to develop, test and evaluate quality improvement within Neuro ICU.