Pause, Partner, Protect

Double hands for delicate airways

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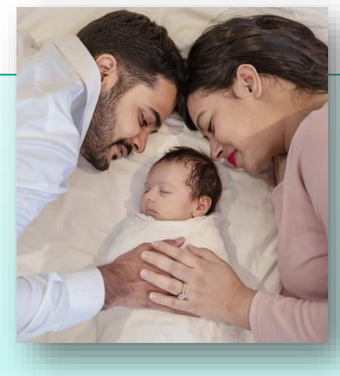
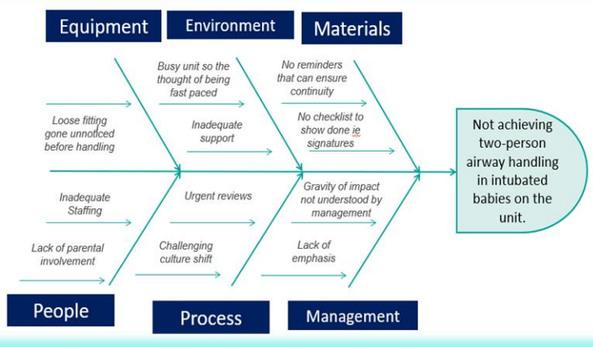
THE PROBLEM

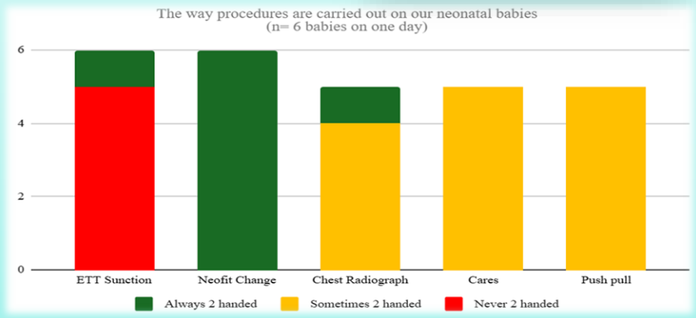
Unplanned extubation is a problem on our neonatal unit. Babies have needed resuscitation due to misplaced tubes.

This is risky and distressing for babies and parents. Staff are pulled from the unit to rescue.

UNDERSTANDING THE PROBLEM







AIM & MEASUREMENT DEFINITION

Aim:
To increase our reliability in using safe methods for managing babies who are intubated by end of February 2026

Chosen measure: **Number of 'cares'* done with appropriate 2 person handling in an intubated baby** (including when parents offer 'one' of the two hands)

Inclusions:
All intubated babies admitted into the neonatal unit for more than 12 hours.

Exclusions:
1. **Babies intubated for Less Invasive Surfactant Administration.**
2. **Babies intubated for <12hours, just for stabilization.**

***most frequent cares-changing diapers, skin checks**

Sampling method and frequency
After collecting your baseline measure (retrospectively if possible)
continue to collect small amounts of data on a regular basis throughout your tests of change

CHANGE IDEAS

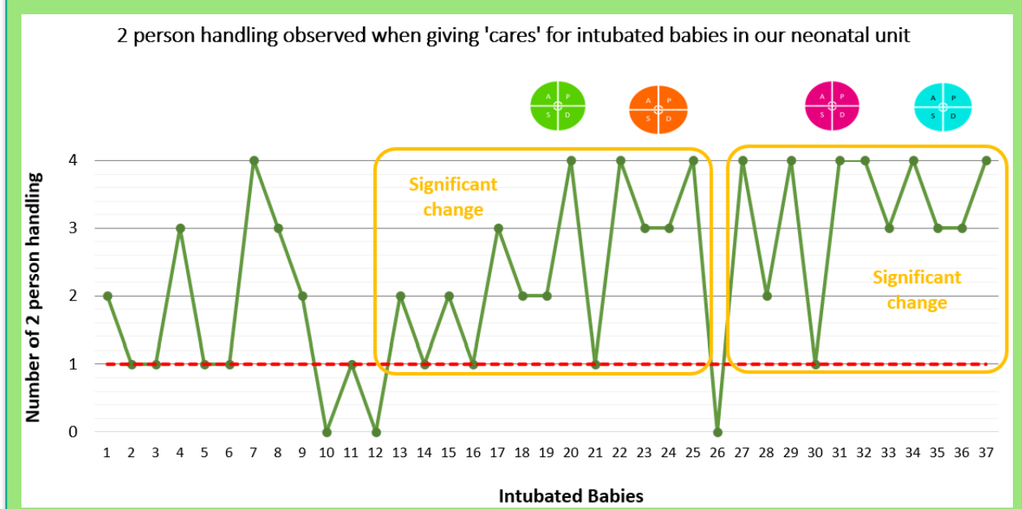
- Dual signatures for documentation
- Set cot side reminders
- Behavioural survey to check knowledge in staff
- Infographics for parents

PDSA cycles

PDSA Test #	PLAN	DO	STUDY	ACT
1.1	Discuss having a parental leaflet with the family/medical team and hear their ideas and feedback about that.	-Visit to family team office. -Check if there are any information leaflets available in the trust	-Doable and was accepted. -No leaflet available at the moment.	**Adapt**
1.2	Leaflet design	-Design leaflet. -Engaging one parent in idea	-This was very welcoming as long as there was support.	**Adapt**
1.3	Leaflet design	-Engaging three parents in idea. -Show family care team	-Happy with this, simpler terms to be used, add airway team to poster for support.	**Adapt**
1.4	Print and display	-Posters in parent's room. -Posters on family team visual board.	-Posters seen, and feedback very encouraging	**Adopt**
2.1	Ensuring reminders at handover verbally.	Inform the team-doctors and nurses to remind at each shift.	-Depending on persons available, this can affect continuity.	**Abandon** verbal reminders- try adding this to next sheet print/booklet out for safety hurdle.
2.2	To add 2 person handling reminders to safety hurdles.	Mention this to airway team in the neonatal unit- this has not been tried before.	Since sheet print/booklet already printed, may be a challenge at this time.	**Extend** Return to verbal reminders for now.

PDSA Test #	PLAN	DO	STUDY	ACT
3.1	To ensure a signatory system where sign offs are done.	-Discuss idea with 2 nurses on shift -Learnt there are sign offs which which are frequently missed	-This may be difficult in addition to 2 person sign off for medications. -Staff may not always be adequate in number for an additional sign off.	**Again**
3.2	Repeat discussions about this idea with more senior nurses	Discuss with the nurse in charge	Has not been efficient and effective, especially with the gradual shift to a paperless system.	**Again**
3.3	Signatory system can be added to Badger notes.	Discuss with stakeholders if this can be added on the Badger notes	May take time to implement for change as the application would need to be worked on.	**Abandon**
4.1	Assess knowledge and practice by doing a behavioural survey.	Create a survey template to assess knowledge	Availability of survey existing in the unit last circulated a year ago.	**Again**
4.2	Repeat plan	Edit survey.	Change from google forms to Microsoft to enhance feedback to response.	**Again**
4.3	To send survey out by email.	Send survey out by email, links and QR code	Minimal response on emails	**Again**
4.4	To send survey out by WhatsApp	Send survey/QR code out by WhatsAPP.	-Better response -Would need regular and continuous reminders with new rotations.	**Extend**

RUN CHART



CONCLUSIONS & LEARNING

Through this work I was able to increase the reliability of using two person handling whilst giving 'cares' to intubated babies in our neonatal unit. The change was statistically significant as shown by two 'runs' of more than 5 data points above the median baseline (7 and 10). These two 'runs' were interrupted by one instance when a baby did not receive two handling 'cares' throughout the day. Overall our reliability improved and babies got better care as regards airway handling. Staff became more aware on the importance of 2 person handling avoiding unpleasant consequences.

I learnt that change needs continuity, especially when system based. Three changes that I tested were adopted. One was abandoned as it required adjustments to the technology which is beyond my sphere of control during my time in the unit – a key learning point.

REFLECTIONS

I exposed myself to the mentorship and the teaching experience and fun online class games which helped me be very practical. I've learnt how essential it is to have a good plan, clear problem statement, and using diagnostics to explore the problems and how to use the structure of the Model for Improvement to guide my improvement efforts. I do wish I had more time to do more cycles and ensure sustainability.

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