Baffled by brain waves

How do we improve confidence troubleshooting the brain function monitoring machine in the most vulnerable babies?

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BACKGROUND

Explore your ONE thing...

I have, on 2 occasions, been unable to troubleshoot this machine. This makes an acute situation a lot more stressful and also affects patient care.

I know I am not the only one that has struggled to use the machine.

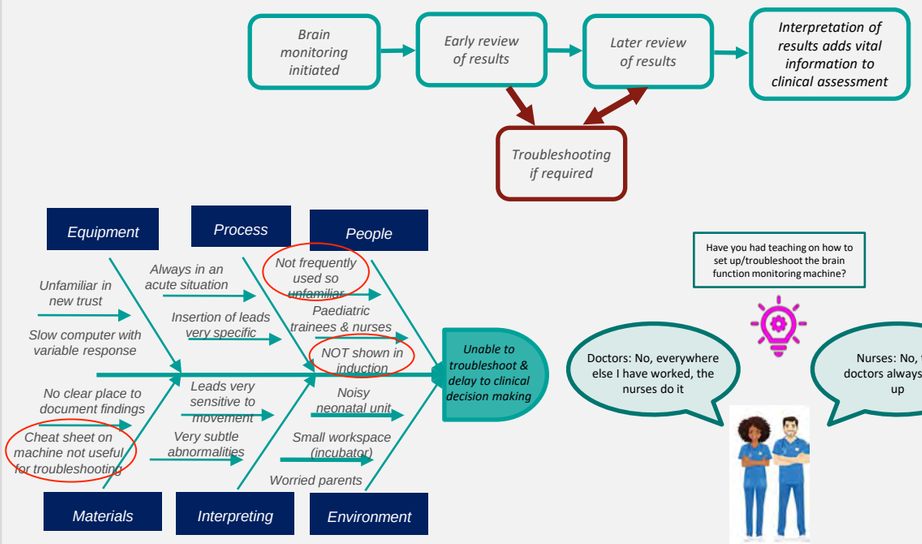
Monitoring electrical brain activity helps determine the **sickest babies**. Being unable to troubleshoot the machine leads to **brain damage** & **death**

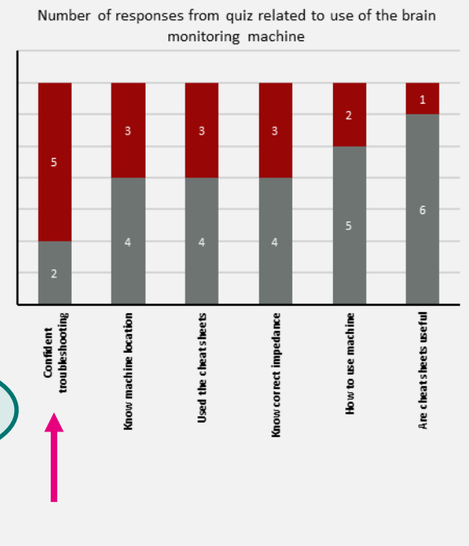
BMJ Journals

NEONATAL ENCEPHALOPATHY AND NEONATAL SEIZURES

Despite advances in obstetric and neonatal care, perinatal hypoxic-ischaemic encephalopathy (HIE) is still experienced by three to four infants per 1000 live term births, and is associated with death or an adverse neurodevelopmental outcome in a considerable number of these. aEEG monitoring of newborn infants with HIE has been used for assessment of aEEG background activity, early evaluation of brain function, detection of seizures, evaluation of the effect of anticonvulsive drugs, selection of patients for neuroprotective intervention, and prediction of neurodevelopmental outcome as early as the first hours after birth.

DIAGNOSTICS





AIM & MEASUREMENT DEFINITION

What are we trying to accomplish?

Paediatric doctors to know how to confidently troubleshoot the brain function monitoring machine to prevent delays in the transfer of sick neonates

By End of Feb 2023 All paediatric doctors to have training on the CFM machine & 5/10 people feel confident troubleshooting it (an increase from 2/7)

SPECIFIC
MEASURABLE
ACHIEVABLE
RESULTS FOCUSSED
TIME-BOUND

An iterative process

Chosen measure
- Perception of confidence

Inclusions
- Paediatric ST1-8 (SHO and registrars) and consultants

Exclusions
- GP trainees

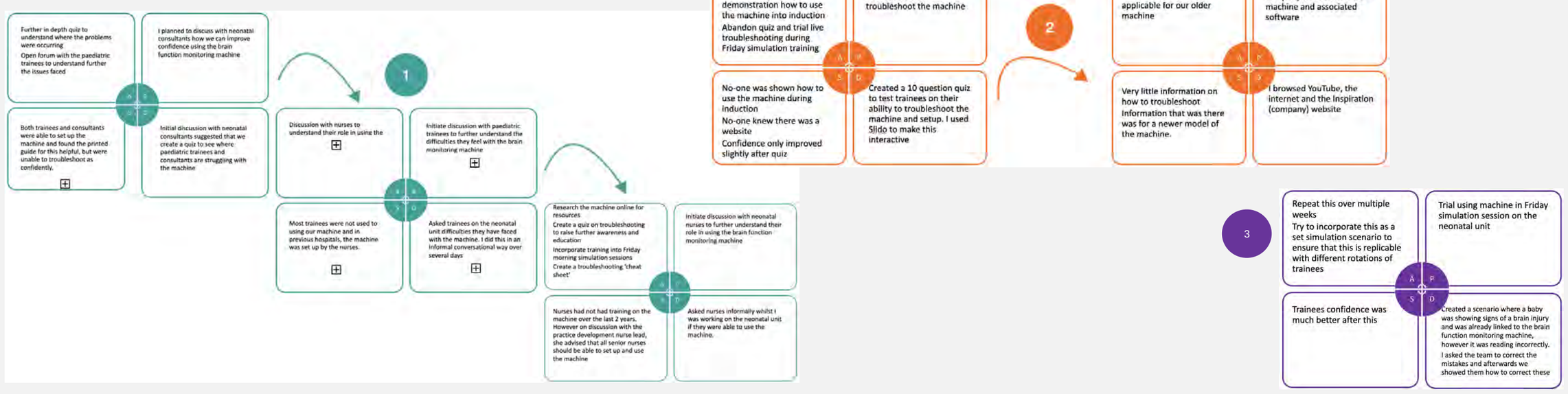
Sampling method & frequency
- Weekly review of confidence levels
- (1 = confident, 0 = not confident)

CHANGE IDEAS

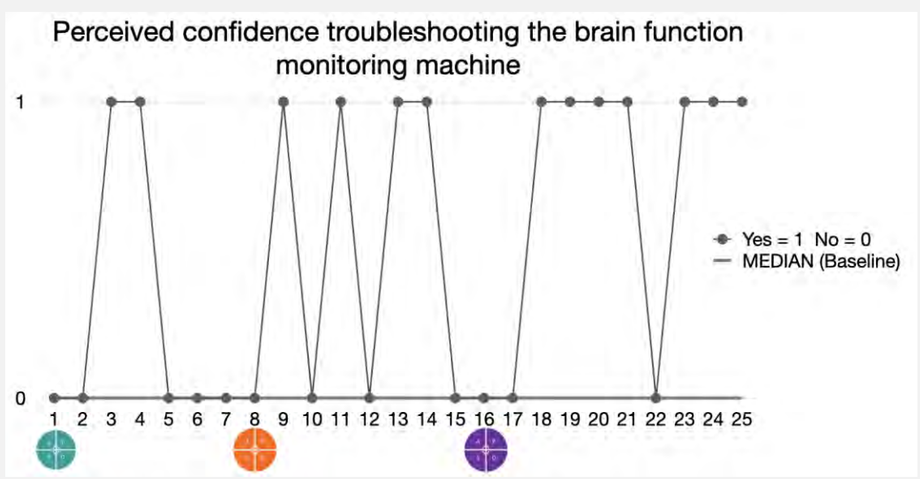
List all the ideas you **could** test...

- Education session about troubleshooting to doctors
- Explore the barriers to nursing staff using the machine
- Introduction to the machine during induction
- Cheat sheet update to include troubleshooting
- Speak to software company re troubleshooting guide
- Create a video on how to troubleshoot the machine
- Update clinical guidelines on what to do if the machine doesn't work
- Change to glue from steristrips for insertion of the leads into the baby
- Checklist for troubleshooting
- Use weekly training bulletin to remind people how to troubleshoot

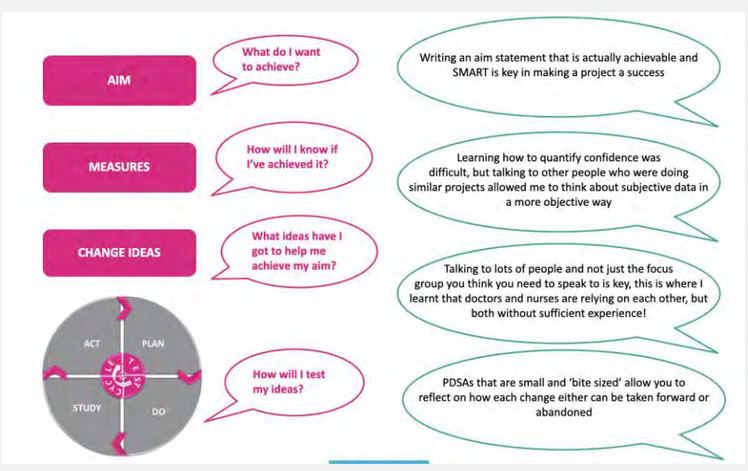
PDSA cycles



RUN CHART



REFLECTIONS & LEARNING



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