Audit of mandatory PH check for fine bore NG tubes incorporating a nursing knowledge survey in an acute hospital.

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Introduction

- NG tube placement is common practice and many are placed daily without incident. The most serious harm arises from misplaced NG tubes, leading to pneumothorax and pneumonia, which can be fatal if not recognised early (*NPSA 2012*). Examples of incidents include misplacement in the lung, PH not being checked and poor documentation.
- **Aim:** To evaluate compliance of PH checks for NG feeding including location of record, frequency of checks and compliance with completion of the nursing Core Care Plan (CCP) for enteral nutrition as part of a wider enteral nutrition policy and enteral feeding form review. Knowledge of what a high PH is and management of it was also sought as part of the nursing survey.

Methods

- Over a four week period, 12 patients on NG feeds across 8 wards (ICU excluded) were included with 65 opportunities for PH checks.
- A random selection of nursing staff across these wards were involved in the survey.

Results

Key findings:

- 84% did not have PH recorded
- 92% of CCP were not signed and completed
- 31% of nursing staff unsure of frequency PH checks
- 100% of nursing staff agree PH record should be incorporated into EN order form

Nursing survey:

- 77% did not know what is classed as a high ph
- 30% of staff surveyed were *unsure* what is the management for a high ph
- >30% surveyed unsure of where to record ph
- 39% have not read the current policy

Figure 1. % of PH recorded

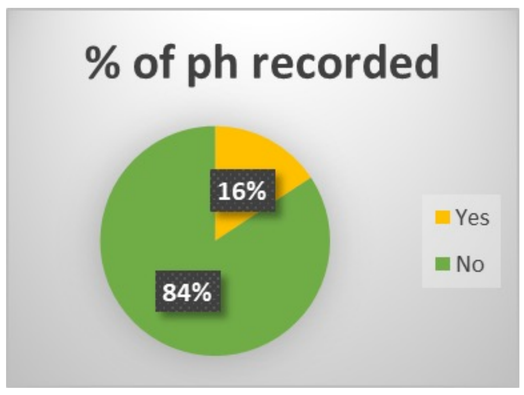
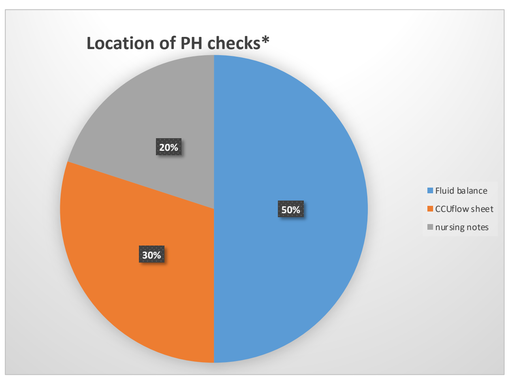


Figure 2. Location of where ph recorded



*As per Nursing policy for insertion & management of fine bore NGT used in EN – it should be documented in **the intake and output chart**

Figure 3. Should ph record be incorporated into EN order form

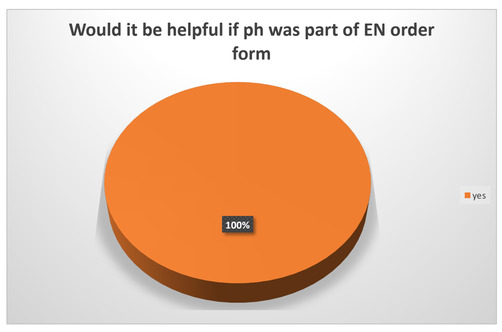


Figure 4. What is classed as a high ph

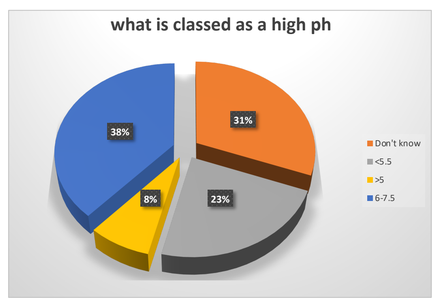


Figure 5. % who read NG policy

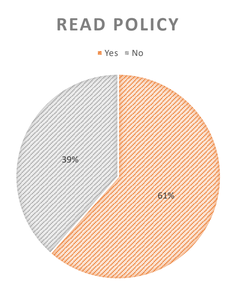


Figure 6. frequency of Ph checks

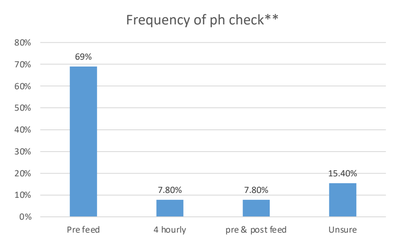
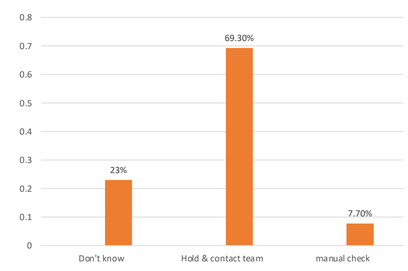


Figure 7. What is the management of a high Ph



Conclusion

NG tube placement is common practice and many are placed daily without incident. The most serious harm arises from misplaced NG tubes. This audit highlighted the rate of PH not being recorded and a lack of knowledge as to what is classed as a high PH indicating a major risk rating requiring immediate action.
Recommendations: review of EN order form and consider incorporating PH check and management of high ph into this, review the need for CCP as part of EN order form, staff education and review current NG policy.
Action: To date the hospital NG MDT policy has been revised and signed off (Feb 2024), staff education undertaken and a NGT ph protocol has been rolled out on the ward to ensure recording of ph while awaiting the new EN order form. The EN order form has been revised and is due for roll out in the coming weeks which includes ph record and information on the appropriate management of the a high ph.

National Patient Safety Agency (NPSA) (2012) Harm from flushing of nasogastric tubes before confirmation of placement www.npsa.nhs.uk NPSA/2012/RR001