An evaluation of non-endoscopic first change of percutaneous endoscopic gastrostomy in the Royal Brisbane & Women’s Hospital

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Background:
Initially inserted percutaneous endoscopic gastrostomy (PEG) tubes require replacement for several reasons, including tube deterioration and elective replacement. This can be performed endoscopically or at the bedside using external traction, where the later method is both practical and cost-effective, but is associated with a greater risk of track disruption and tube malposition. Confirmation of tube placement includes clinical methods or the gold standard methods of gastroscopy and radiocontrast studies. Incidence of complications including tube malposition is suggested to be higher amongst those patients who are non-verbal. Currently, there is no consensus on an ideal method of first PEG change and technique to confirm tube position in this population.

Aim:
To evaluate non-endoscopic first change of PEG at Royal Brisbane & Women’s Hospital, and associated morbidity and mortality.

Methods:
Data was collected on all patients who underwent a non-endoscopic first PEG change at the RBWH between July 2016 and July 2019 from a local patient information platform, which was cross checked with the endoscopic reporting system. Study population was categorised into verbal and non-verbal groups to allow for analysis of difference in morbidity and mortality between the two groups.

Results:
22 patients had undergone non-endoscopic first PEG change, of these 17 were verbal and 5 non-verbal. Tube location was confirmed using clinical methods. 11.8% (N=2) of verbal cohort experienced major complications. 20% (N=1) of non-verbal cohort experienced a minor and 0% experienced major complications. There were no procedure related deaths.

Conclusion:
Within the limitations of a small sample size, this study has observed no relationship between non-verbal patients and significant morbidity following non-endoscopic first PEG change. External traction followed by clinical techniques to confirm tube position are appropriate in this population.