Enteral feeding is essential in effective patient management due to a number of reasons including the provision of hydration and nutrition, prevention of oxidative cell injury and modulation of immune responses. Radiologically inserted gastrostomy (RIG) is an often used route for patients due to its high technical success rates and low complication rates. At our institution, RIGs are utilised predominantly in patients who are not amenable to endoscopic insertion (for example - in head and neck cancers) or in those who had a previously failed attempt at endoscopic insertion.

This audit was initiated following the publication of the CIRSE standards of practice guidelines on gastrostomy in 2016. Standards for audit were mostly derived from this guideline.

# Background

- Feeding tube exchanges
- Technical success
- Complications rate
- Post procedure imaging strategy and raising awareness amongst practitioners

## Methods

### Round 1 – 100 consecutive cases spanning 12 months in 2015 - 2016

- Overall 93% compliance with reporting standards.
- Technical success rate was 98%.
- Complications rate was 1% for major (measuring tube incorrectly left in situ requiring replacement with feeding tube at 24 hours) and 3% for minor complications.
- From the 9% of patients who had post procedure imaging querying complications:
  - 100% of CT studies versus 75% of tubograms accurately answered the clinical question.
  - 75% of CT studies versus 50% of tubograms were final – both suboptimal.

### Round 2 – 39 consecutive cases spanning 6 months in 2016 - 2017

- Overall 7% absolute drop in compliance with reporting standards.
- Technical success rate increased to 100%.
- Complications rate was 6.6% for major (1 patient required surgical peritoneal lavage and drainage) and 5% for minor complications (2 patients).
- Only 1 patient underwent post procedure imaging querying complication:
  - CT which accurately answered the clinical question and was final.
- The increase in complication rates are likely reflective of the smaller cohort size (39 vs 100 patients) as the absolute number of cases remain low.

### Learning points

1. In patients who had problems following RIG insertion, tubograms failed to provide any definitive answers as all patients also had CT scans. A change in imaging strategy to CT first improved diagnostic accuracy.
2. Informing interventional radiologists of reporting outcomes did not lead to change in practice – supplementary measures such as the short code are required.

## References