

## Infection rate in PEG vs. One-Step Gastrostomy in hospitalized children at a tertiary care hospital in Jeddah, Saudi Arabia

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### Background

**Objectives:** To compare the infection rate between the PEG Pull-technique and the more advanced One-Step Gastrostomy technique (MIC\*, MIC-KEY\* Introducer Kit, Avanos Medical, Alpharetta, GA, USA)

**Methods:** - Single Center retrospective study:  
King Abdul-Aziz University Hospital (KAUH) in Jeddah - Saudi Arabia.  
- Log sheets of the endoscopy unit and hospital records were reviewed.  
- Data was collected between 2002 and 2019.

### Outcomes

**Results:**

- In total 132 patients were reviewed:  
66 One-Step technique and 66 Pull PEGs,  
both patient groups had same type of diagnosis and same demographics (e.g.: age, gender)
- Inclusion criteria: < 14 years, underwent gastrostomy placement regardless of their diagnosis.
- Exclusion criteria: surgical gastrostomy placement.

**Conclusion:**

- Pull PEG infection rate was 12,12% (in comparison to other studies who had an infection rate of 2,7 to 16,5%).  
Despite the fact 16,66 % of these Pull PEG patients received prophylactic antibiotics.
- The infection rate in the One-Step technique was 1,5%.
- The data shows a significant difference, up to eightfold drop in infection compared to the Pull PEG infection rate.
- Gram negative organisms were most prevalent which indicates a hospital acquired infection.
- The Introducer Kit is probably better than Pull PEG regarding infection rate as the infection rate was eight folds lower!  
The study needs further to be assessed in a bigger cohort in order to extract better solid conclusion.