

Timing of Percutaneous Endoscopic Gastrostomy for Acute Ischemic Stroke: Results from the Nationwide Inpatient Sample

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Introduction

Palliative and end-of-life care guidelines in stroke recommend time-limited trials of nasogastric feeding prior to placement of percutaneous endoscopic gastrostomy (PEG) tubes. We sought to identify predictors of early PEG for acute ischemic stroke.

Methods

We designed a retrospective observational study to examine time to PEG for acute ischemic stroke admissions in the Nationwide Inpatient Sample, 2001-2011. We defined early PEG placement as occurring 1-7 days from admission. Using multivariable regression analysis among hospitals with reporting of race, we identified the effects of patient and hospital characteristics on time to PEG.

Results

We identified 34,623 admissions receiving a PEG from 2001-2011, 81% of which were ≥ 65 years old (older adults). Among older adults, average time to PEG was 8.1 days (vs. 9.6 days for younger patients; $P < 0.01$). Sixty one percent of the oldest old (≥ 85 years) received a PEG tube in the early period compared to 41% of those 18-54 years old ($P < 0.01$). Regression analysis ($n = 18,065$ hospitalizations) showed early PEG was associated with older adult age groups (≥ 85 years vs. 18-54 years: Odds Ratio [OR] 1.65, 95% CI 1.42-1.92). Early PEG placement was less likely to occur in admissions for black stroke patients (vs. white; OR 0.84, 95% CI 0.77-0.91), admissions at high minority-serving hospitals (OR 0.82, 95% CI 0.76-0.90), and teaching hospitals (OR 0.78, 95% CI 0.73-0.83).

Conclusions

Older adults, who may be the most likely to benefit from time-limited trials of nasogastric feeding, have a greater odds of receiving an early PEG tube compared to younger patients.