Dysphagia in the stroke population can lead to serious complications: aspiration pneumonia, increased length of stay, and increased mortality. Early screening and identification can help prevent complications. Older patients with non-specific symptoms of stroke may not be recognized and entered into the standard stroke protocol.

Methods

- **Sample and Setting:** Patients ≥ 65 with a non-contrast head CT in the Emergency Department.
- **Intervention:** An interdisciplinary work group initiated a Plan, Do, Study, Act (PDSA) process improvement project with an aim to increase dysphagia screening compliance prior to oral intake in patients with a final diagnosis of stroke.
  - RNs performed proactive dysphagia screens on every patient in the sample population.
  - RNs collaborated with physicians to evaluate and revise the patient’s plan of care based on screening results.
  - Screening results were communicated to the inpatient nursing team via a customized ED to inpatient handoff tool in the electronic health record (EHR).
- **Methods of Evaluation:** Compliance was evaluated using a custom EHR report, and then manually crosschecked for the presence of dysphagia screening prior to oral intake in the identified population. Data was shared weekly for one month and then biweekly for an additional month until the process was adopted.
- **Analysis:** After two PDSA cycles, dysphagia screen compliance increased to 100%.

Background

- Dysphagia in the stroke population can lead to serious complications: aspiration pneumonia, increased length of stay, and increased mortality.
- Early screening and identification can help prevent complications.
- Older patients with non-specific symptoms of stroke may not be recognized and entered into the standard stroke protocol.

Local Problem

- Patients with non-specific symptoms were not entered into the standard stroke protocol in the ED. Subsequent evaluation led to a diagnosis of stroke, which resulted in missed dysphagia screening.
- Initial attempts to provide additional education to improve screening compliance were unsuccessful.
- Dysphagia screening compliance in the ED in the 3 months leading up to the intervention averaged 94.0%, with a goal of 100%. During the same time period, the aspiration pneumonia rate in stroke patients hospital-wide was 7.7%.
- Data analysis revealed most dysphagia screening non-compliance occurred in patients ≥ 65 years who had received a non-contrast head computed tomography (CT).

Results

- Dysphagia screen compliance rates rose from 94% to 100%.
- Aspiration pneumonia rates decreased from 7.7% to 0.0%.
- The additional nursing time to complete screening averaged 5 minutes per patient.
- Successful change management principles led to full adoption of a nurse driven process to improve patient safety and outcomes.

Conclusions

- The intervention achieved 100% compliance for dysphagia screening in target population after two PDSA cycles, and zero cases of aspiration pneumonia in stroke patient population.
- A positive unintended finding was the identification of non-stroke patients with possible dysphagia who benefitted from additional consults and diet modifications.

Implications for Practice

- Increased awareness of prevalence of non-specific symptoms of stroke in patients ≥ 65 years.
- Reduced aspiration pneumonia rates in the stroke patient population.
- Proactive intervention and screening improved compliance to meet regulatory requirements and enhance patient safety.
- The team determined that positive patient outcomes outweighed the additional time required to complete screening.
- The modified dysphagia screening process was embedded into ED nursing practice at the site through inclusion in stroke education class.

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References
