

WHAT WE LEARNED

Implementation of an interprofessional evidence-based algorithm to guide clinical decision making for aspiration pneumonia (AP) prevention decreases rates of AP in the acute care setting

PURPOSE

This interprofessional quality improvement initiative was conducted to decrease rates of aspiration pneumonia (AP) among patients admitted to the medical units at the Hospital of the University of Pennsylvania (HUP)

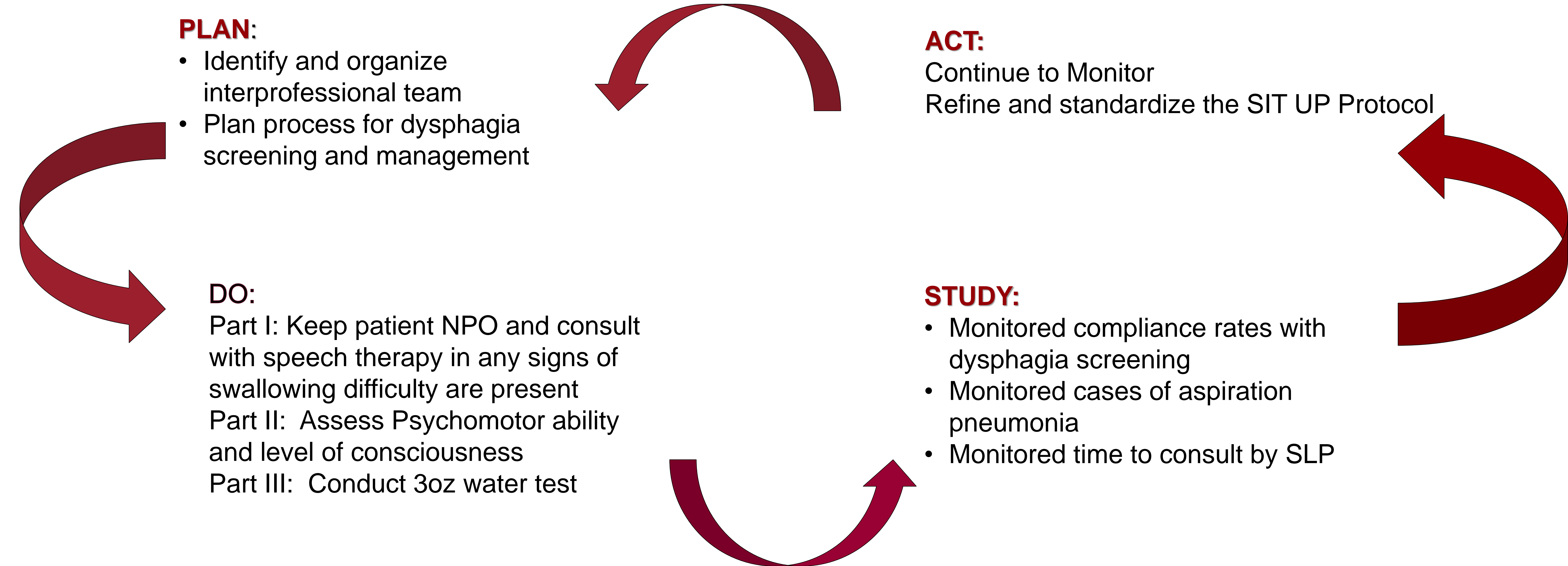
BACKGROUND

- AP results from oropharyngeal or gastric contents entering the larynx and lower respiratory tract and becoming colonized by bacteria
- AP leads to increased morbidity, mortality, and longer lengths of stay
- Dysphagia is the most significant risk factor for AP
- Rates of AP for medical patients at HUP were higher than the national average
- Implementing a nursing based screening tool can improve patient outcomes

METHODOLOGY

- **Setting**
 - 3 medical inpatient units at a large urban academic medical center
- **Participants**
 - An interprofessional team (MD, SLP, RNs) created a nurse driven process to identify and screen patients at risk for aspiration
- **Method**
 - Utilized Plan-DO-STUDY-ACT quality improvement methodology to implement Project SIT-UP (Screen, Identify, Treat, Understand, Plan)

QUALITY IMPROVEMENT PROCESS



PLAN:

- Identify and organize interprofessional team
- Plan process for dysphagia screening and management

DO:

- Part I: Keep patient NPO and consult with speech therapy in any signs of swallowing difficulty are present
- Part II: Assess Psychomotor ability and level of consciousness
- Part III: Conduct 3oz water test

ACT:

- Continue to Monitor
- Refine and standardize the SIT UP Protocol

STUDY:

- Monitored compliance rates with dysphagia screening
- Monitored cases of aspiration pneumonia
- Monitored time to consult by SLP

RESULTS

- PDSA approach yielded refinement of the SITUP Protocol

S = SCREEN for dysphagia using 3oz water test
I = IDENTIFY aspiration risk
T = TREAT underlying causes of dysphagia
U = UNDERSTAND patient's continued risk for AP
P = PLAN for AP prevention during hospitalization

- Clinical Outcomes:
 - 90% compliance was achieved within 4 months of implementation
 - Aspiration rates decreased by 40% over 9 months

CONCLUSIONS

- A multi-disciplinary approach to aspiration risk reduction has led to a decrease in diagnosed cases of AP
- Clinical nurses assume a vital role in AP risk detection and preventative care
- Use of an evidence-based algorithm to has improved documentation of a patient's risk for aspiration and guidance for an appropriate plan of care
- Program has utility across multiple settings – implement in medical ICU given success on medical units

