

Introduction

In the United States, about 20% of all deaths occur in the ICU setting (Angus et al., 2004). However, within the Neuro-ICU setting, patients who suffer from an intracerebral hemorrhage or anoxic brain injury, have an even higher mortality rate at 50% (Frontera et al., 2015). In the ICU setting, palliative care needs are often great and unmet. This project aims to meet those needs.

Background

Screening for palliative care in the ICU setting has been developed by The Center to Advance Palliative Care or CAPC and endorsed by The National Institutes of Health. With a tool such as this, studies have shown a reduction in healthcare costs, reduced ICU resources, increased communication among staff and patients, as well as better symptom control of patients (Nelson et al., 2013).

Methodology

This quality improvement project used a pre/post design to measure patient outcomes when implementing palliative care screening in an adult Neuro-ICU in a hospital in northern NJ.

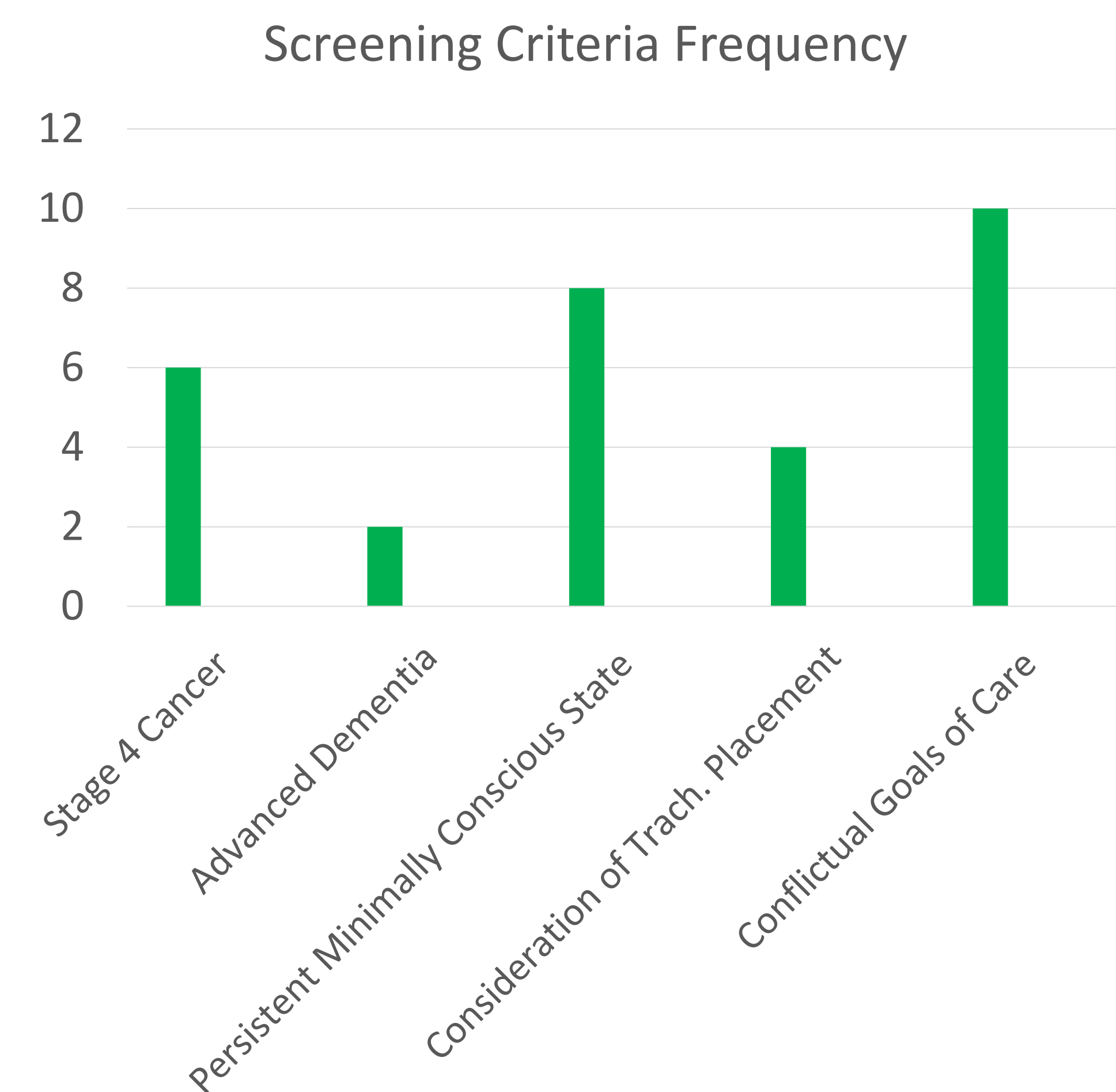
There was a 2-month period before screening and a 2-month period during screening in the Summer/Fall of 2020 where patient outcomes were analyzed. There was 64 patients in the pre-screened group (Group A) and 70 patients in the post-screened group (Group B).

Nurses on the unit used an adapted ICU palliative care screening tool daily from the CAPC, with 5 criteria selected. 1 criterion was suggestible for a palliative consult, while 2 or more criteria triggered the palliative consult.

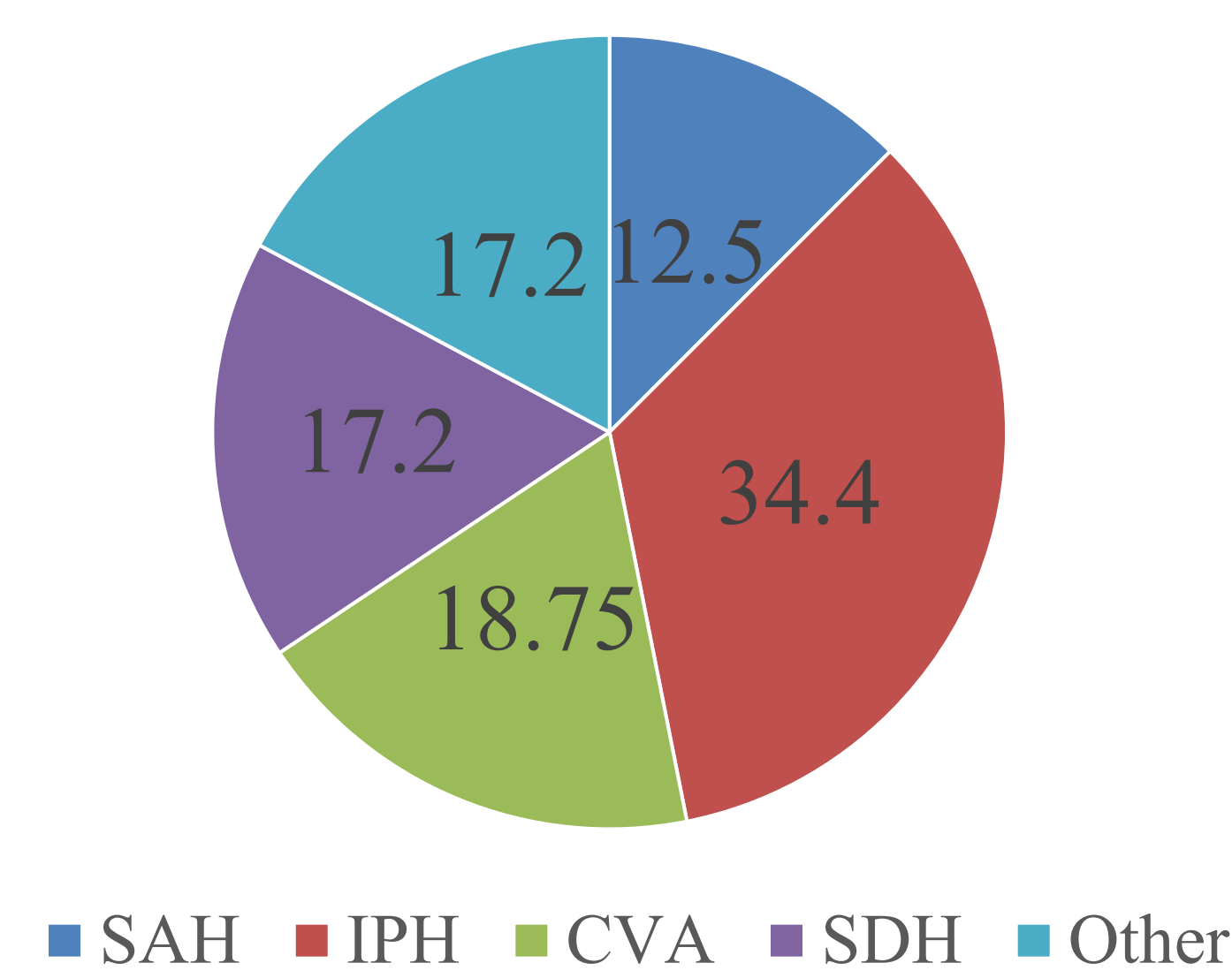
Patient outcomes were measured using SPSS by independent samples t-tests overall and by diagnosis among the pre/post groups and our goals were to find:

- Decreased Neuro-ICU mean length of stay
- Increased family meetings held
- Increased palliative care consults ordered
- Increased DNR orders placed

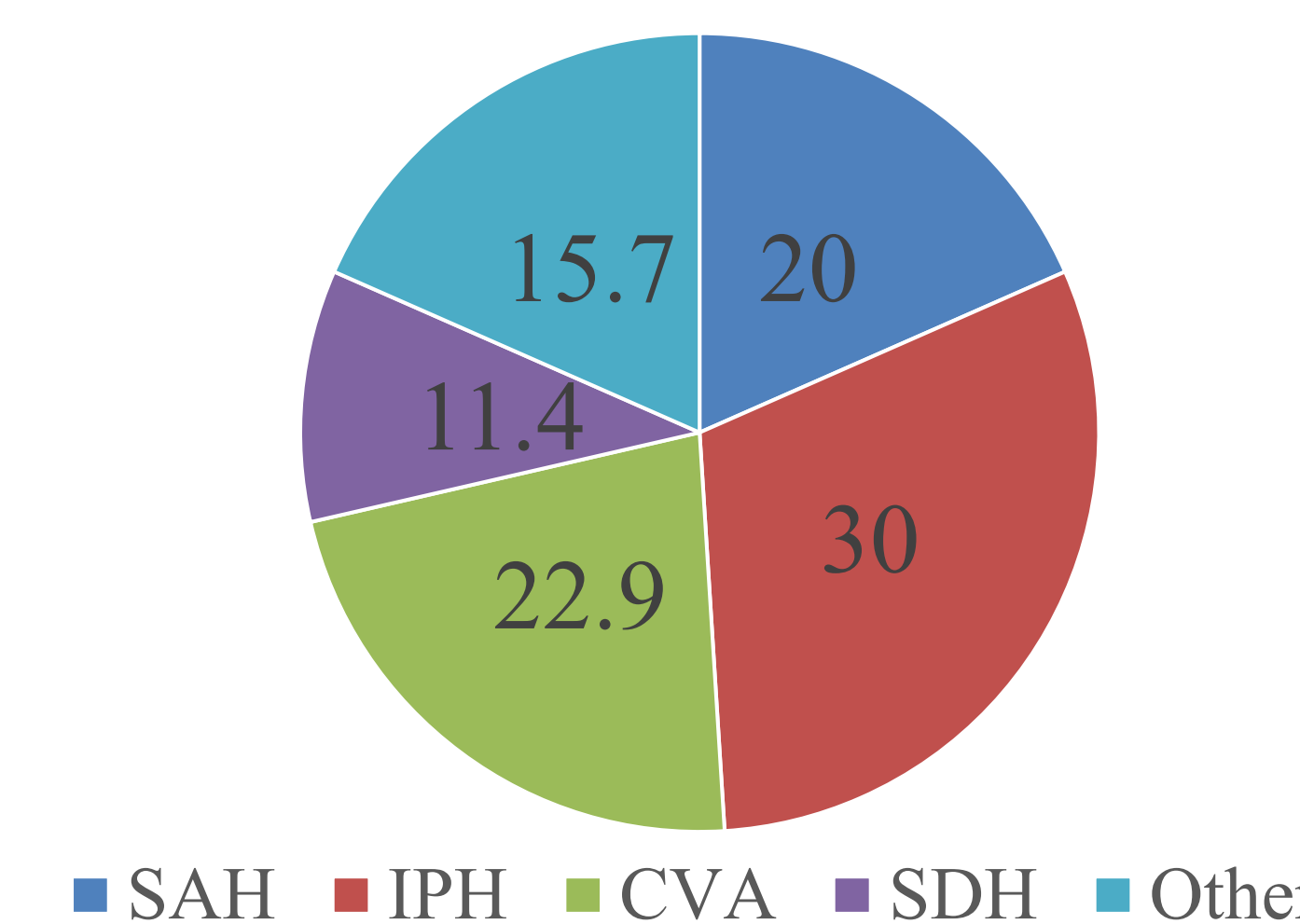
We also used SPSS to determine if there was any statistically significant differences from Group A compared to Group B in terms of their demographics of age, sex, and diagnosis.



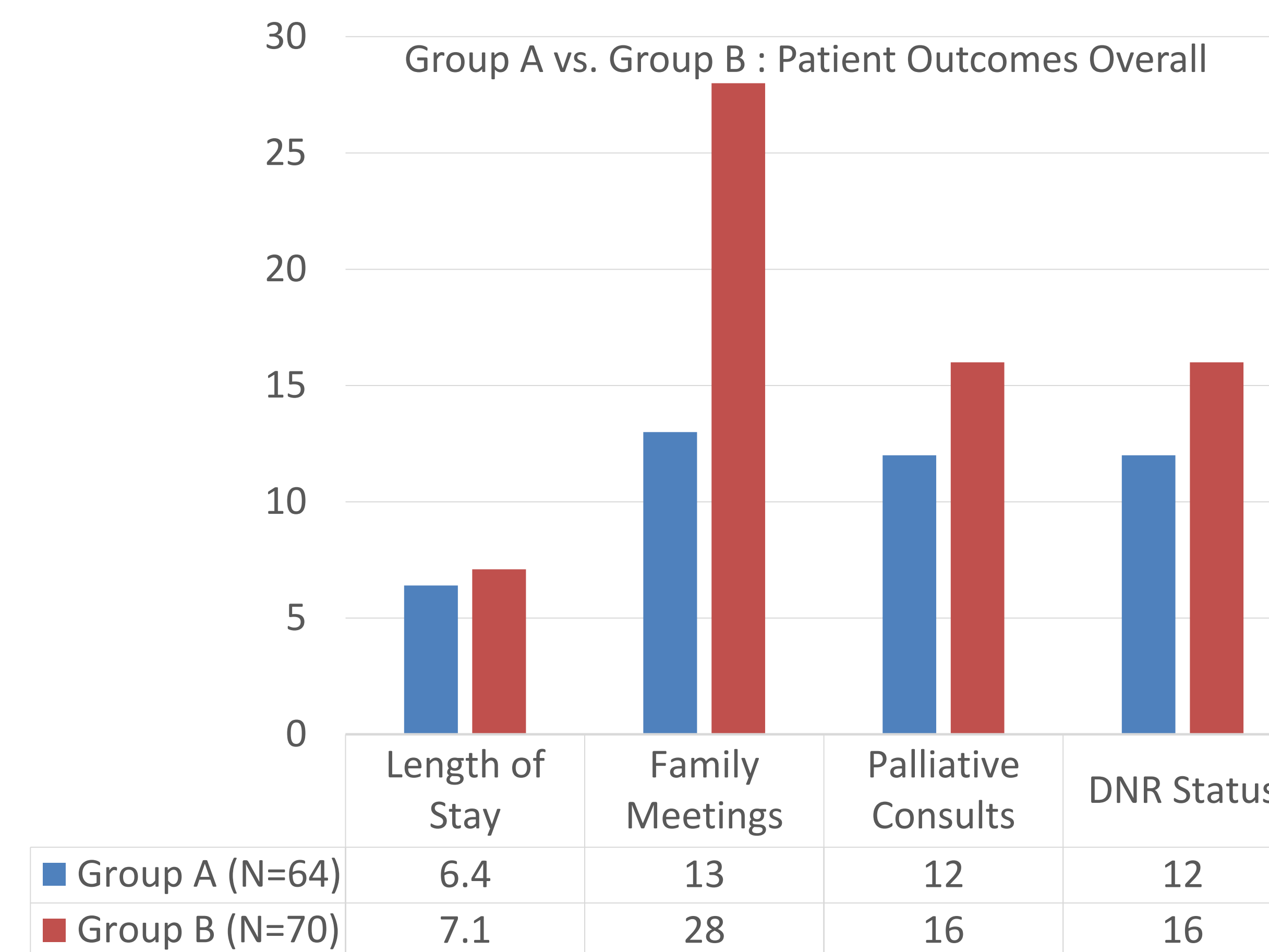
Diagnoses in Group A by %



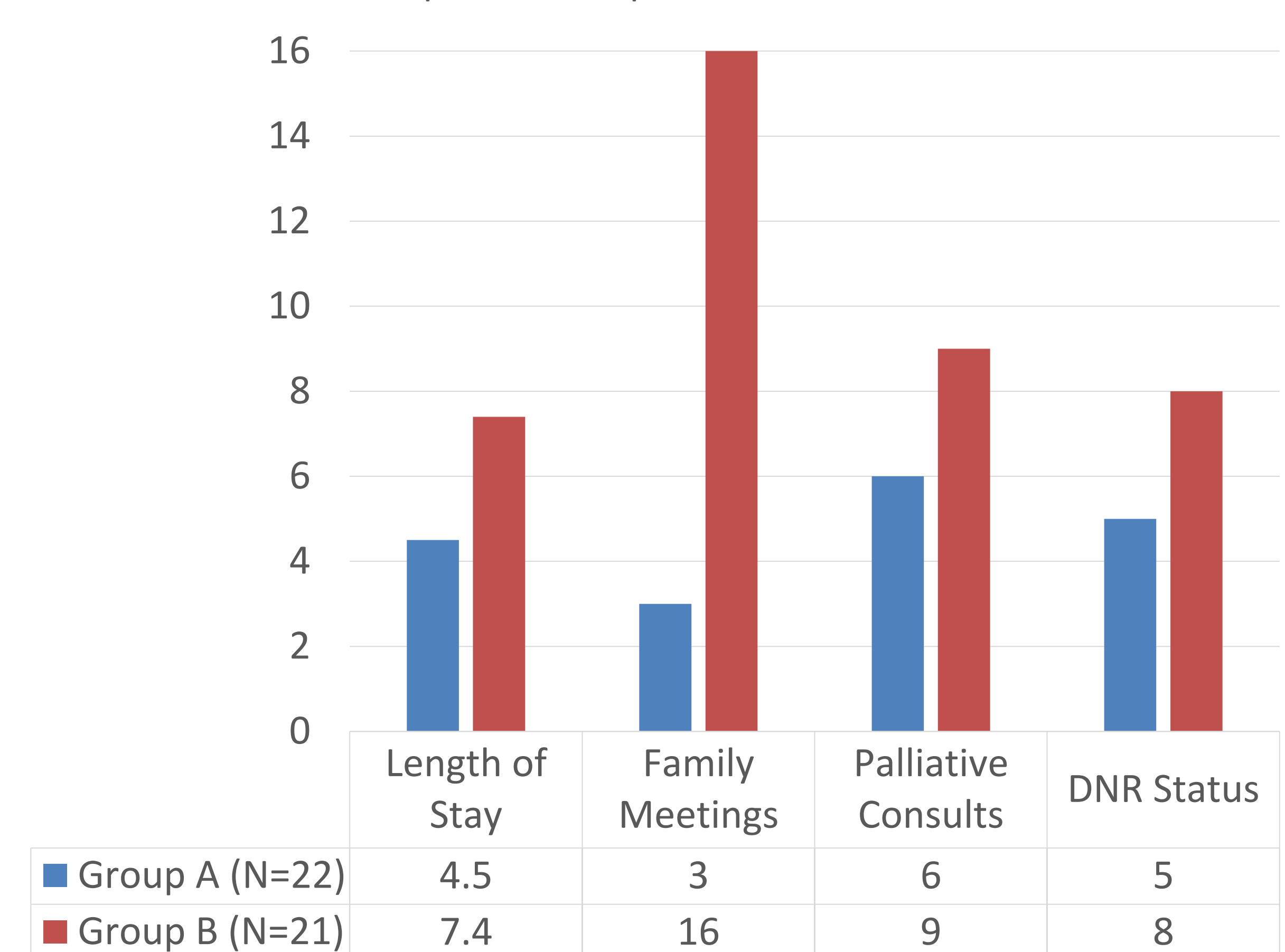
Diagnoses in Group B by %



The diagnoses were similar in the pie graphs displayed between Group A and B (p-value = 0.66). The diagnoses most frequently encountered included: Subarachnoid hemorrhage (SAH), intraparenchymal hemorrhage (IPH), cerebrovascular accident (CVA), subdural hematoma (SDH), and others. Also, age and gender were similar among Groups A and B (p-value of 0.37 and 0.41 respectively). Demographic differences did not appear to affect patient outcomes.



Group A vs. Group B: Patient Outcomes for IPH Patients



Results

Neuro-ICU mean length of stay overall slightly increased after palliative screening implementation from 6.4 days to 7.1 days (p-value = 0.6).

Neuro-ICU family meetings overall increased more noticeably from 13 to 28 meetings (p-value = 0.17).

Palliative care consults ordered overall on the unit increased slightly from 12 to 16 (p-value = 0.6).

DNR status changes also increased overall slightly from 12 to 16 DNR orders placed (p-value = 0.6).

When utilizing independent samples t-tests for patient outcomes by diagnoses, IPH patients did show more family meetings after palliative care screening from 3 to 16 (p-value = 0.05). All other patient outcomes by diagnosis did not show statistically significant results.

Discussion

Palliative care screening often leads to more palliative care consults. This in turn has been linked to reduced lengths of stay in the hospital, which economically is cost saving (Kyeremanteng, 2018; Nelson et al., 2013).

Routine use of palliative care screening in the ICU, like other screening tools, can be looked at as a policy change, where it is already used for patients diagnosed with cancer.

Family meetings have doubled in this project and has shown significance with IPH patients. This often leads to better communication with providers among patients and families, a quality of care indicator (Dudgeon et al., 2008; Khandelwal et al., 2015).

A possible drawback to this project, was its correlational design. Palliative care screening has been correlated with these positive findings but cannot necessarily be shown to be causative. Also, the daily palliative care screenings were only utilized about 60% of the time.

Conclusion

Palliative care screening in the ICU setting has been moderately effective in several studies. This project has seen slight positive results with palliative care screening overall, including a doubling of family meetings and slight increases in palliative consults and DNR statuses, but without statistical significance. Family meetings for IPH patients did increase with statistical significance after palliative screening. However, length of stay on the unit did increase slightly overall unexpectedly. More projects and research ought to be conducted to further define palliative care screening criteria and its utilization efforts in the ICU setting and more inpatient areas.

References:

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