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Influence of Telephone Preoperative Evaluations on Patient Medication Compliance on Day of Surgery

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Introduction

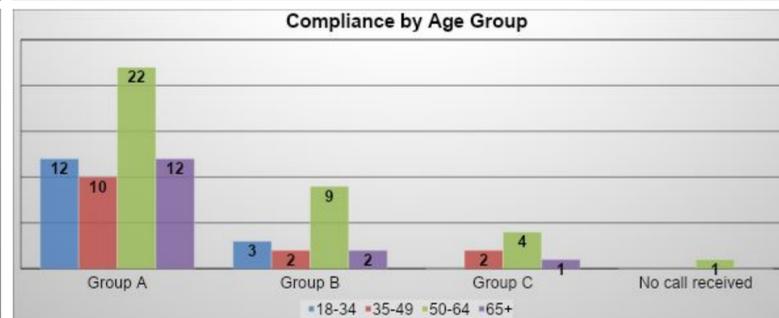
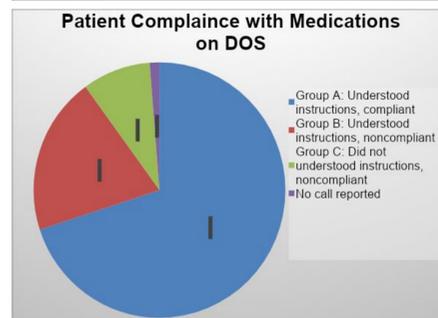
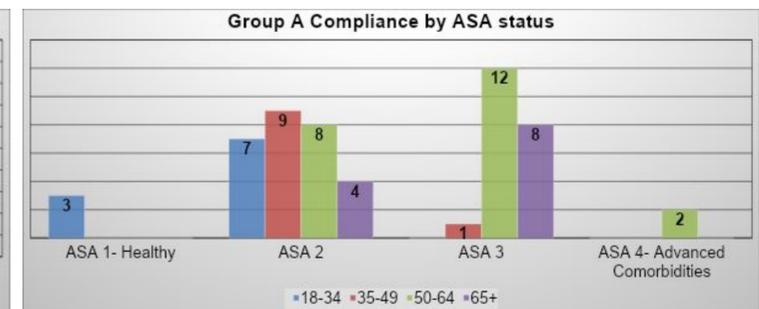
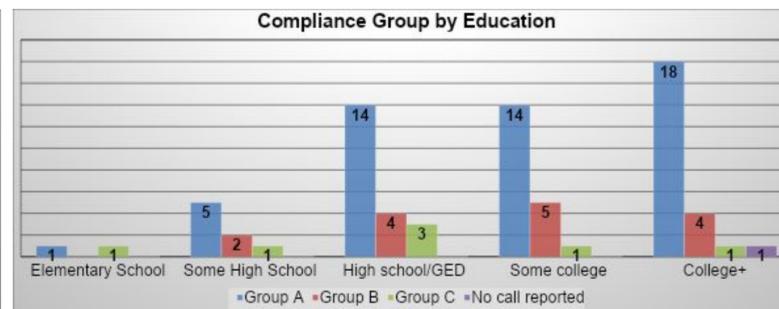
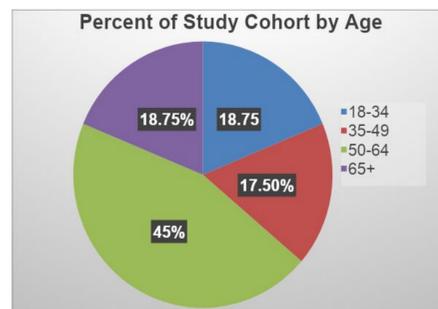
Patient compliance with medication instructions on day of surgery (DOS) is a crucial component of the preoperative assessment encounter, as failure to comply with these may lead to serious perioperative consequences.

Prior studies have shown that compliance increases with multimodal interventions including in-person education, telephone reminders, and standardized EMR generated instructions.^{2,3}

Patients seen in-person at the PACE clinic are given standardized written instructions to supplement the verbal medication instructions discussed during the visit. Due to the recent COVID-19 pandemic, many in-person visits transitioned to telephone visits which limit the interventions that patients may receive.⁴ For the phone assessments, providers had to rely on patients to follow solely verbal instructions.



Results



Conclusions

- Current evidence suggests that telehealth video encounters may be equal or superior to telephone encounters for patient care compliance but there is paucity of research on the topic and further investigation is necessary.⁶
- These preliminary results will help us further refine our survey questions and identify other areas to further improve DOS medication compliance

Materials & Methods

Participants were enrolled during March 2021. Eligible patients included those evaluated by PACE clinic providers over telephone, 18 yo or older, spoke English, and gave verbal permission.

The OR schedule was reviewed ahead of time to identify eligible participants, MS students conducted the survey on the day of surgery in the preoperative surgical unit, prior to patient's departure to the operating room.

A survey questionnaire consisting of six questions was designed for this study and patient answers were recorded by students to manage time efficiently.

To determine medication compliance, we compared the medication instructions provided by PACE, per chart review, with each patient's own report of which medications they took on the morning of surgery.

Based upon previous studies^{2,7}, we chose to measure effectiveness of medication instructions using the following scale: compliance rates of 80-100% = Superior (Group A), 70-79% = Optimal (Group B), 1-60% = Poor (Group C).

Secondary outcomes included demographics potentially associated with patients' compliance, i.e. age, education level and ASA physical status class, were obtained from patient's EMR.

Data were compiled using MS Excel and analyzed using conventional inferential biostatistics.

- A total of 80 patients (100%) were surveyed. Fifty six (70%), Group A compliance, understood instructions and were compliant with meds instructions. Sixteen (20%), Group B, understood instructions but were noncompliant. Seven (9%), Group C, did not understand instructions and were noncompliant, and 1 patient reported no phone call received
- The most common age group in this study was the 50-64 age range (n=36), followed by the 18-34 (n=15), 65+ (n=15) and the 35-49 (n=14) age ranges
- Of those participants in Group A compliance, one had at least an elementary school education, five completed some high school, fourteen had a completed high school or received a GED, and thirty two had completed some college education or higher level
- In regards to Group A compliance and ASA physical status, three respondents were ASA 1, twenty nine ASA 2, twenty one ASA 3 and two ASA 4.

Discussion

- Due to the COVID-19 pandemic, the PACE clinic conducted more telephone assessments. This survey suggests that telephone assessments seem to be an effective means of achieving patient medication compliance on the day of surgery (70% compliance rate)
- While education level seemed to influence likelihood of Group A compliance, ASA physical status class and age did not
- Patient suggestions for change included sending instructions through the patient portals, calling again if the patient missed the call, making patient call backs easier to connect with providers, and clarifying medication nomenclatures
- Outcomes will be shared with clinic staff to find ways to improve compliance. This study will be performed again once telephone assessments transfer to virtual encounters this year.



Limitations

- A limitation of our study is the number of subjects surveyed. Increasing the sample size through additional patient surveys would further increase our study's power.
- Our study relied on self-reported medication compliance data, which can contain sources of bias such as selective memory.
- A few patients noted they were instructed to take medications they only took in the evening, so at the time of interview, they had not taken those medications. Patient instructions, as recorded in their EMR, often made no mention of timing regarding DOS medications, which likely affected our evaluation of patient medication compliance.
- No national data available to compare our findings to and determine whether our metrics were below or above the national average.

Acknowledgements

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References

