

# Does an Anesthesia Case Early Notification System Affect the Feelings of Preparedness of Anesthesiology Providers?- A Short Report

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## Citation

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## Abstract

Anesthesiologists provide perioperative management of patients. In order to best care for these patients, adequate time must be provided to prepare for the surgical case and to optimize workup of the patients undergoing surgery. At our hospital, faculty anesthesiologists do not receive notification of their assigned cases until the actual day of surgery. We initiated a trial protocol which informed faculty of their assigned cases via email the evening before the case. Our data shows that anesthesiologists feel more prepared, more satisfied and better equipped to care for their patients when provided this information the day before a scheduled case.

## INTRODUCTION

The Memorial Herman Hospital at the Texas Medical Center stands as the busiest trauma center in the United States. Each year, the hospital averages 14,937 inpatient and 3,972 outpatient surgeries.<sup>1</sup> This high volume of surgeries results in a robust UT Health anesthesiology department. Despite the large case-load, there has never been an organized system of informing faculty of their next-day operating room assignment and case type. Historically, faculty anesthesiologists and/or anesthesiology assistants (AAs) are informed of their next-day cases by the residents and/or AA-students who are assigned to work with them the next day. Residents working in the operating room review a paper copy of the schedule when it is distributed in the late afternoon the day before. However, in the event that faculty are staffing cases by themselves, there is no system for which they can check their assignments for the next day unless they are physically in the operating room at the hospital. As a result, faculty may feel unprepared to safely provide care for the acutely sick patients who routinely undergo surgeries at Memorial Herman. In order to help faculty feel more prepared to safely provide perioperative management of these patients, the authors have developed the Anesthesia Care Early Notification System. We hypothesized that attending anesthesiologists who receive an email notification indicating their operative room

assignment, presence/absence of a resident/anesthetist, surgeon and first case type would feel more prepared to safely care for patients than without such a system.

## METHODS

The study population included faculty anesthesiologists who staff the Memorial Hermann Main Operating Room Suite (83 anesthesiologists). This specifically excluded the Heart and Vascular Institute and Pediatric Cardiothoracic Operating Room. This project occurred in 3 phases. IRB approval was obtained, and at no time was protected health information distributed or stored. There was no active clinical component to this protocol.

During phase 1, a survey asking the questions in appendix 1 was emailed to the entire department faculty. This survey was administered via SurveyMonkey.com. Please see appendix 1 for the questions asked and the formatting to be seen by the participating faculty. 5 days were given for faculty to respond to the survey.

After the completion of phase 1, an email listing of the next day's OR schedule was sent to the faculty. The information was generated from the list submitted to the department of anesthesiology from Memorial Hermann Hospital on a daily basis (already in progress). Only HIPPA Compliance trained personnel in the department of anesthesiology were

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permitted to handle this information. They used the schedule to generate the form to be emailed to the faculty. This schedule was sent daily before 5pm (reflecting the next day's OR assignment) for 3 weeks.

At the completion of phase II, a survey asking the questions in appendix one was emailed to the entire department faculty. This survey was administered via SurveyMonkey.com. Please see appendix 1 for the questions asked and the formatting seen by the participating faculty. 5 days were given for faculty to respond to the survey.

The data was then compiled and analyzed by the departmental statistician.

### RESULTS

In order to maintain anonymity of the participants, no identifying data was obtained of the subjects. As a result, the data could not be treated as paired data. The descriptive statistics are detailed in Figure 1 -10. For attending anesthesiologists, there is an increase in percentage among those that strongly agree and agree that they generally feel informed about the operative cases that they will be assigned to staff the following day when the ACENS protocol was in place. There is also an improvement in percentages that report strongly agree and agree that they feel well prepared to care for their operative patients the night before their scheduled date to staff the operating room.

### DISCUSSION:

Our data does shows an improvement in how anesthesiology providers feel prepared to care for their patients by obtaining information about their cases at least 12 hours in advance. Advance notice allows providers to improve preparation and optimize workup and setup before providing perioperative management of their patients. Following the implementation at Herman Memorial Hospital, ACENS protocol has now been integrated into the routine operational structure of the department of anesthesiology for over 13 months. Utilization of an ACENS-like system could have tangible benefits towards improved physician satisfaction, a metric commonly measured in hospitals. Furthermore, notification of the type and scope of surgical case planned improves patient safety based on the data in our survey.

### CONCLUSION:

An anesthesia early case notification system likely results in improved physician satisfaction in an academic setting.

Further prospective studies formally assessing actual physician satisfaction scores may be warranted.

### APPENDIX

#### Appendix One

Attending Anesthesiologist questions:

Q1: I am an attending anesthesiologist in the Memorial Hermann Operating Rooms.

Q2: I staff the Memorial Hermann ORs

Q3: I generally feel informed about the operative cases that I will be assigned to staff the following day.

Q4: I feel well prepared to care for my operative patients the night before my scheduled date to staff the operating room.

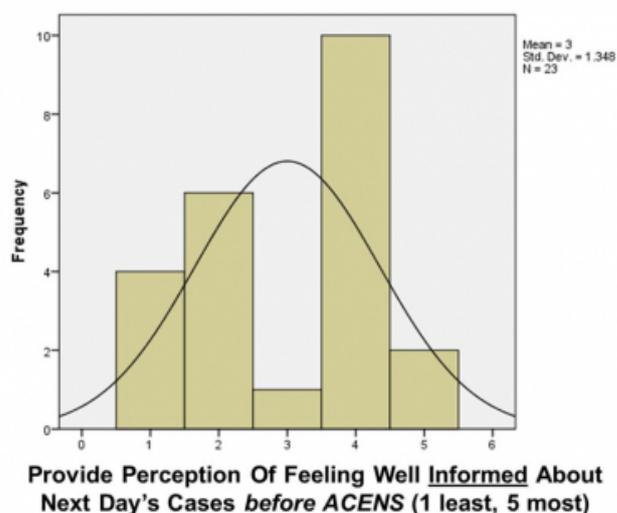
Q5: My case assignment for the next day is easily available.

Q6: I feel well prepared for my cases for the next day when I do not have a colleague or student informing me the night before of my OR assignment.

Q7: My knowledge of the next day's assignment dependent on if I am post-call/on vacation or not (in other words, whether or not you are in the hospital the day before).

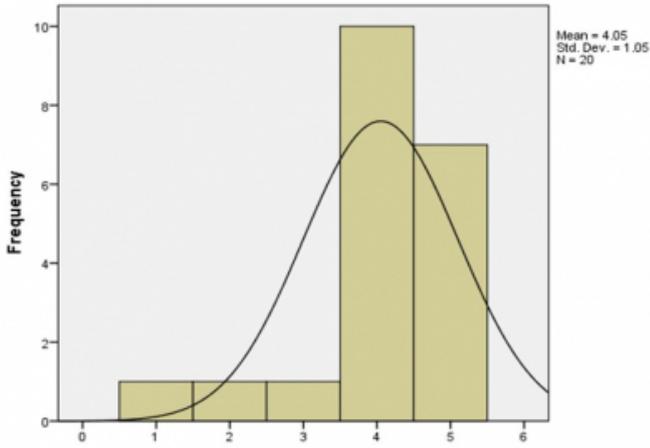
Q8: I regularly check my email on my wireless phone.

Figure 1



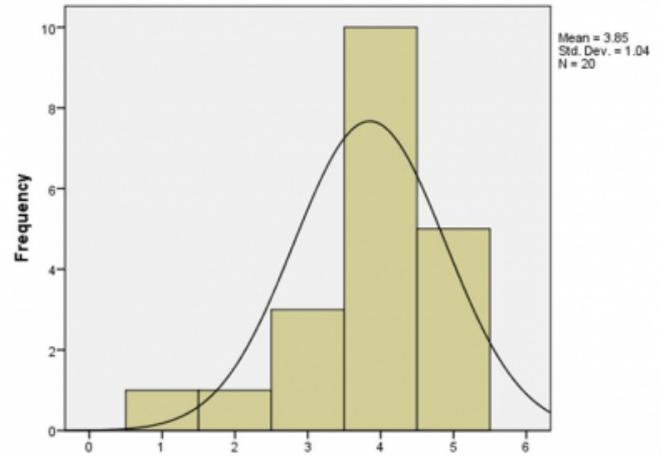
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**Figure 2**



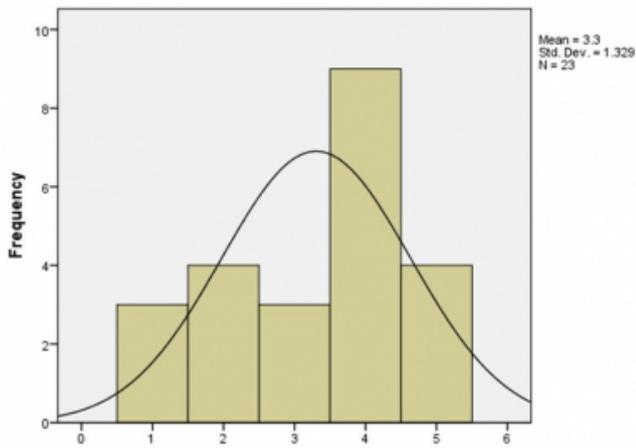
Provide Perception Of Feeling Well Informed About Next Day's Cases *after* ACENS (1 least, 5 most)

**Figure 4**



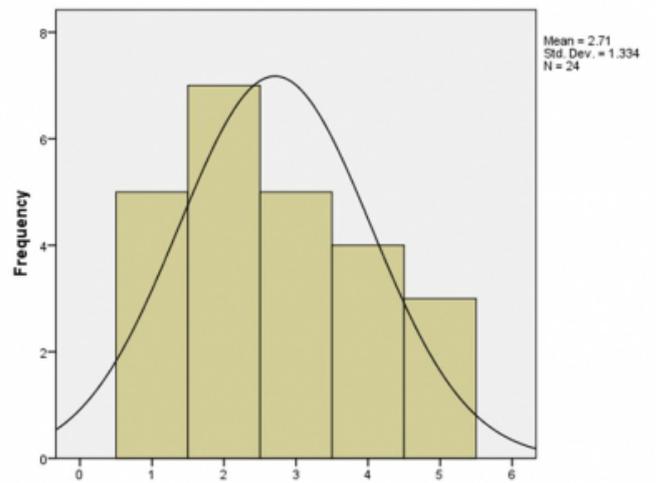
Provide Perception Of Feeling Well Prepared About Next Day's Cases *before* ACENS (1 least, 5 most)

**Figure 3**



Provide Perception Of Feeling Well Prepared About Next Day's Cases *before* ACENS (1 least, 5 most)

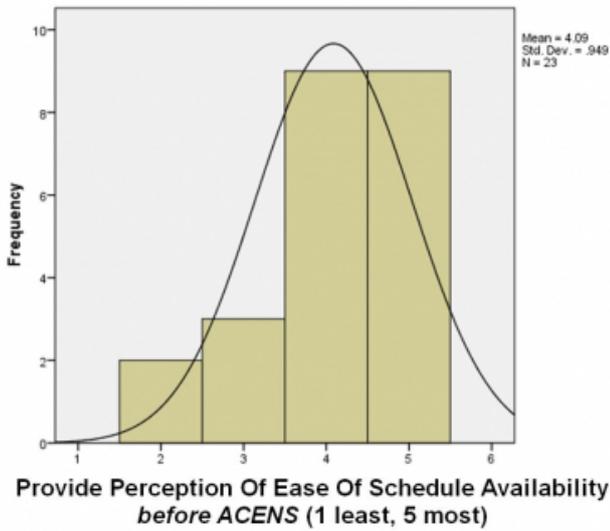
**Figure 5**



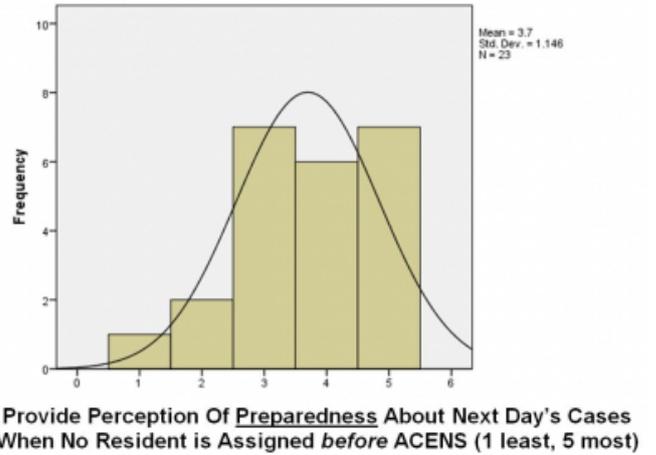
Provide Perception Of Ease Of Schedule Availability *before* ACENS (1 least, 5 most)

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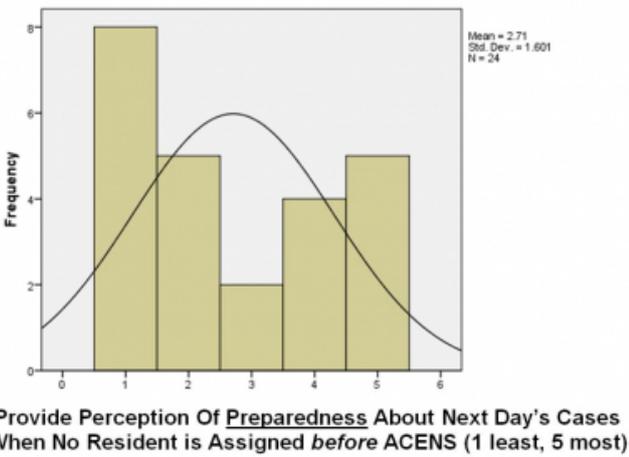
**Figure 6**



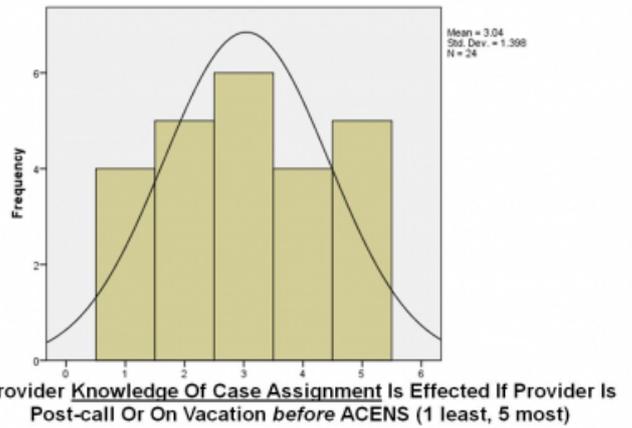
**Figure 8**



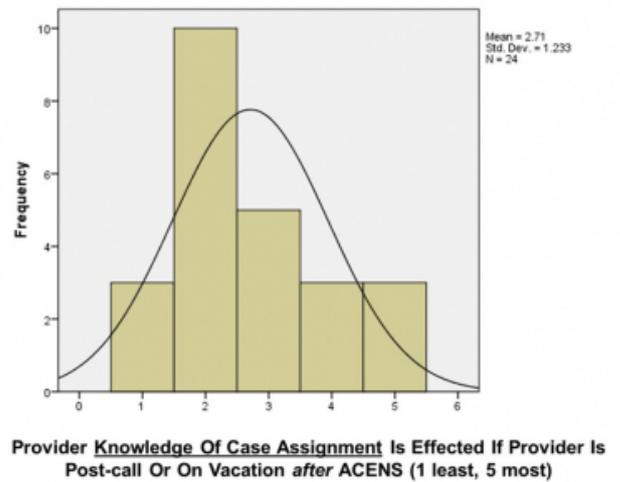
**Figure 7**



**Figure 9**



**Figure 10**



**References**

1. "Memorial Herman Texas Medical Center."

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