

# MEDICATIONS IN COLLEGIATE EMS: TO GIVE OR NOT TO GIVE?

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## INTRODUCTION

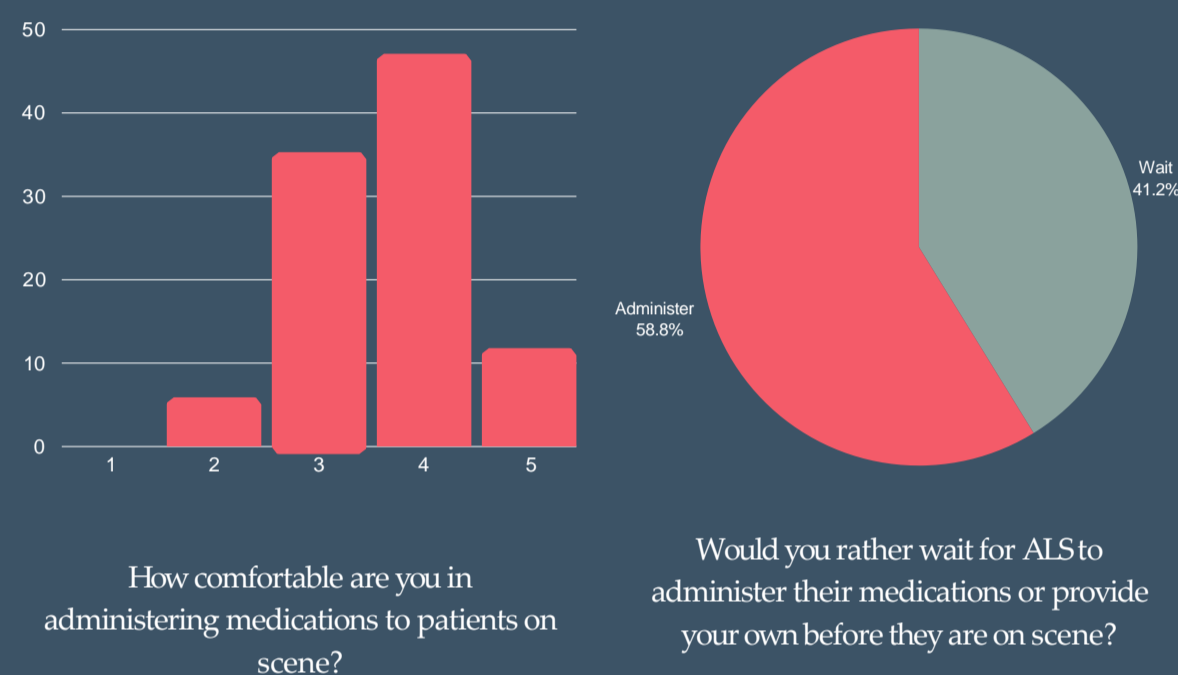
Medication administration is part of the scope of practice of the EMT-B. In the prehospital setting, it has been shown that drug administration errors occur in up to 12.76% of cases<sup>1</sup>, with confirmations that such cases are under-reported<sup>2</sup>. The most common factors for this issue include knowledge deficiencies, misuse, underuse and overuse<sup>3</sup>, which can be directly related to the responder's level of comfort with the practice itself. While there are no reports on the frequency of administration errors in the collegiate EMS setting, it is possible that the field follows similar trends. Therefore, the purpose of this study is to analyze the comfort level of Emergency Medical Technicians in administering medications in the prehospital setting, and whether that is reflected in the relative frequency of true administration when applicable to patients.

## METHODS

A survey was distributed to Gator Emergency Medical Response Unit EMT-B 911 shift leads to measure their perceived comfort level of medication administration. The leads were asked about their beliefs as well as their behaviors in relationship to administering medications, and the answers were computed graphically in the images shown next. Additionally, an analysis was performed in which responders were asked to determine the causes of any potential discomfort and potential solutions to this issue, to determine where additional education and potential changes may be beneficial to the responder and the patient.

Lastly, service calls from the previous eight months were analyzed to determine the frequency of medication administration when appropriate. With such, it would be possible to determine the comfort level of the unit as a whole, to approximately determine whether there was a general trend to be seen and corrected. Cases were chosen based on chief complaints applicable to medication administration, their respective symptoms, negative contraindications upon patient assessment, and successful transfer of care for the necessary confirmation of the patient health's needed improvement.

## RESULTS



On a 1 to 5 scale of comfort administering medicine, 5 being most comfortable, the most frequent response was a 4 (47.1%). Following this, 35.3% of responses were in the middle (choice 3) and 11.8% were Very Comfortable (choice 5). The least frequent response was 2 (5.9%), and no lead responses believed themselves to be a 1. Furthermore, when asked whether they would rather wait for ALS to arrive on scene to administer medications, more than half of responses (60%) chose to wait higher care.

The final analysis illustrated that the majority of responders who were Not Very Comfortable in administering medications felt as such due to lack of experience, knowledge, fear of adverse effects as well as any consequential liability, and preference for the better-skilled, higher-quality resources provided by ALS over BLS. Simultaneously, the most frequent responses referencing potential solutions to this issue included more training, experience and education. Alternative answers involved providing more practice scenarios and providing EMT leads with a reference sheet with the proper information for the medications provided by the unit.

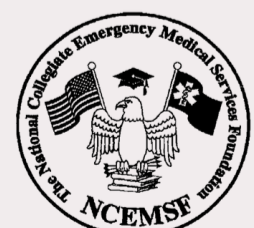
After completing the unit analysis, patient data showed that 3 out of 28 of cases applicable to medication administration in the previous eight months were, in fact, administered. While this finding is significantly low, it was also noted that these administrations were performed in emergency situations, as in the use of glucose or Benadryl, and underused in the case of patient comfort, as in the use of Zofran. Therefore, the lead EMTs of the unit analyzed were comfortable in performing within their scope of practice with competency and timeliness when doing so would impact the course of patient care, and potential medication errors were related to optional administration for patient comfort.

## CONCLUSION/DISCUSSION

The study concluded that the majority of responders who completed the survey feel comfortable with administering medications, but records of patient medication necessity further specifies that such cases are in life-threatening situations rather than those where patient comfort is considered. In the collegiate setting where responders may lack the confidence in handling medications when not emergently necessary, more training for members and guidance from medical directors, beyond learning the medical protocols per lead clearance requirement, may improve patient-responder interaction as patients are more frequently offered comfort care medications. Not only that, but creating a physical reference that is easily accessible to lead EMTs during patient care may improve the confidence in the medical knowledge of the same, while reassuring their ability to conduct treatment. Thus, improving responder comfort and confidence in their medication administration can improve the quality of patient care by ensuring responders are also able to attend to the patient's level of comfort.

## REFERENCES

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