

TITLE: **The PIMMS Study**
Analysis of Complications Associated with Emergency Department Rapid
Sequence Intubation

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RESEARCH PROJECT DESCRIPTION:

Rapid sequence intubation (RSI) is an often lifesaving intervention in unstable patients presenting to the emergency department. However, the medications used during RSI, as well as the abrupt changes in respiratory physiology inherent in the procedure, can precipitate serious complications including hypotension, aspiration, and cardiac arrest. Despite the frequency with which this procedure is performed, thorough investigation of the incidence and long-term effects of such complications is lacking. Knowledge of the incidence of adverse outcomes associated with RSI and risk factors for these outcomes could improve the care of critically ill patients. Outcomes assessed will include presence and duration of peri-intubation hypotension, need for pressor support, cardiac dysrhythmias, length of mechanical ventilation, ICU and hospital stay, aspiration, adrenal insufficiency, and mortality.

The medical student will review emergency department and inpatient medical records and analyze the resulting data to identify complications, the outcomes of these complications, and factors associated with their development. They will also have the opportunity to assist with potential prospective enrollment of emergency department patients in a trial of stress-dose steroids for prevention of peri-intubation hypotension. Finally, the student will also participate in abstract preparation and presentation at the Florida College of Emergency Physicians annual meeting in August, as well as eventual manuscript preparation. Funding will be from internal sources.