

# Dugoni Medical Emergency Response Team

By: Alia Rubaie, Kevin Adams, Alini Agnes, Jesse West Manton



## INTRODUCTION

The introduction of the Medical Emergency Response Team (ERT) Teaching Internship Program, established in 2022 by Dr. Manton, alongside six selected students, marks a pivotal initiative in the Dugoni school's medical education. (Picture 1) As the original junior crew chiefs, the three student authors were privileged to help design and found the pilot program. The program's original vision aimed to cultivate a system for rapid medical emergency response to provide effective assessment and management of acutely unwell patients while empowering students with enhanced training experiences in more advanced life support techniques.

All members of the team must undergo rigorous training in the American Heart Association Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS). Throughout the year, we develop unique and important skills by attending frequent training sessions for IV access, advanced airway management, preparation and administration of ACLS and BLS medications, and patient interviewing skills.



Picture 1: The founding teaching internship crew with faculty lead (left to right): Harrison Haws, Sanchith Hegde, Samuel Cassani, Jesse W. Manton, Kevin Adams, Alia Rubaie, Alini Agnes.

## OUR SYSTEM

At the Dugoni school, our ERT is the frontline support for any urgent or emergent medical situations that arise. Our team is comprised of a rotating group of OMS faculty, a registered nurse, OMS interns, and student teaching interns. Teaching interns are grouped into an on-call system with E1, E2, and E3. Each week, one student from each group, is assigned a pager to carry so they can respond to team activations.

Recently, we've introduced a bi-level response protocol: Code **LILAC** and Code **BLUE**. A Code **LILAC** signifies a patient requiring urgent medical attention. Conversely, a Code **BLUE** indicates a patient requiring emergent medical attention. The team members and equipment that are sent with the responding team are customized to match each code level.

Upon arrival, our ERT members promptly evaluate, identify, intervene, and triage accordingly, ensuring the best possible outcomes for patients. All care is provided under the supervision of a licensed faculty member.



Picture 2: Crew chief Kevin Adams facilitating care for a patient in the dental emergency clinic.

## BILEVEL RESPONSE

Beginning in April 2024, all ERT activations are categorized as either Code **BLUE** or Code **LILAC**

### Code Blue: Unstable Patient - EMERGENCY

- Patients has a life-threatening condition
- Examples include:
  - Chest pain
  - Anaphylaxis
  - Choking
  - Major injury

### Code Lilac: Stable Patient - URGENCY

- Patients has a non-life-threatening condition
- Examples include
  - Vasovagal syncope
  - Mild hypoglycemia
  - Minor injury



Picture 3: Crew chief Alia Rubaie facilitating an ERT training session focused on ACLS

## SIGNIFICANCE OF IMPACT

The ERT program at the Dugoni school has measurably improved patient safety within our clinic. By training a specialized group of students to provide direct patient care during medical urgencies and emergencies, we've enhanced our ability to handle unexpected situations. This proactive approach not only reassures our patients but also reflects our dedication to their safety and well-being. Positive feedback from patients who've experienced the ERT's prompt response highlights its importance.

Additionally, the ERT's establishment has inspired other students to improve their skills in responding to and managing acutely unwell patients in a dental settings. Witnessing a team of their peers take on such responsibility has motivated students to enhance their training in responding to such emergencies. We have seen this through an increase in students attending selective courses offered by Dr. Manton and facilitated by ERT members, as well as an increase in the number of those who are interested in becoming an ERT member. This culture of preparedness enriches our student community and emphasizes collaboration and dedication to every patient's well-being.

## ACKNOWLEDGEMENTS

We extend our sincere gratitude to Dr. Jesse West Manton and the Department of Oral & Maxillofacial Surgery for their support, dedication, mentorship, and tireless efforts in laying the groundwork for this groundbreaking program.

Call Acuity

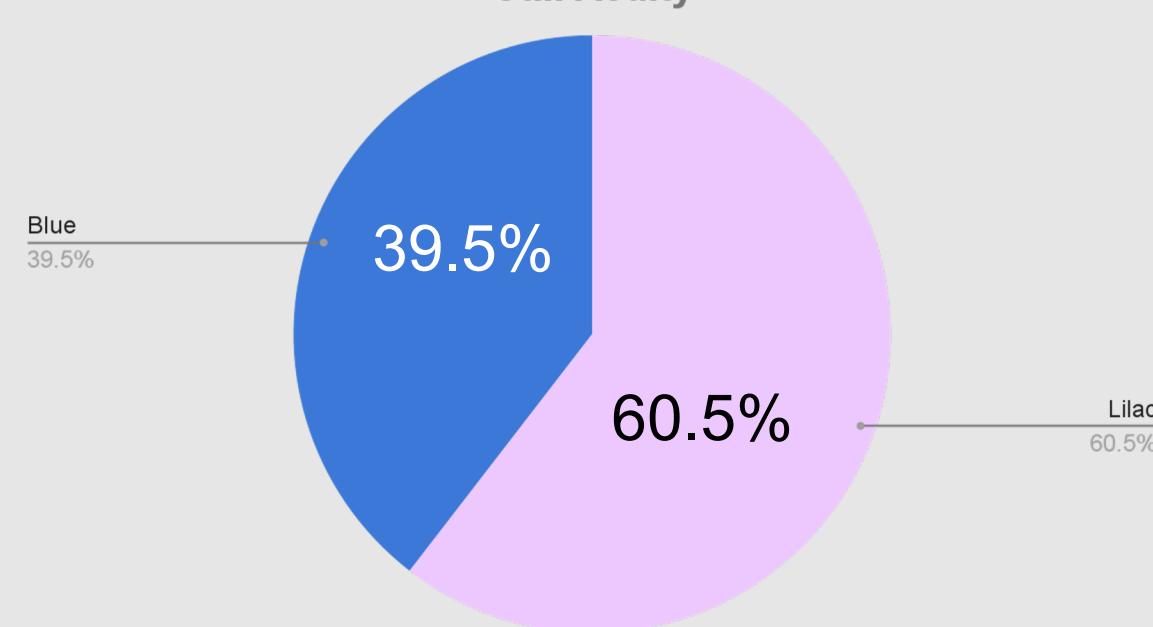


Figure A: Call Acuity 07/2022 – 04/2024

Resolution of ERT Activations

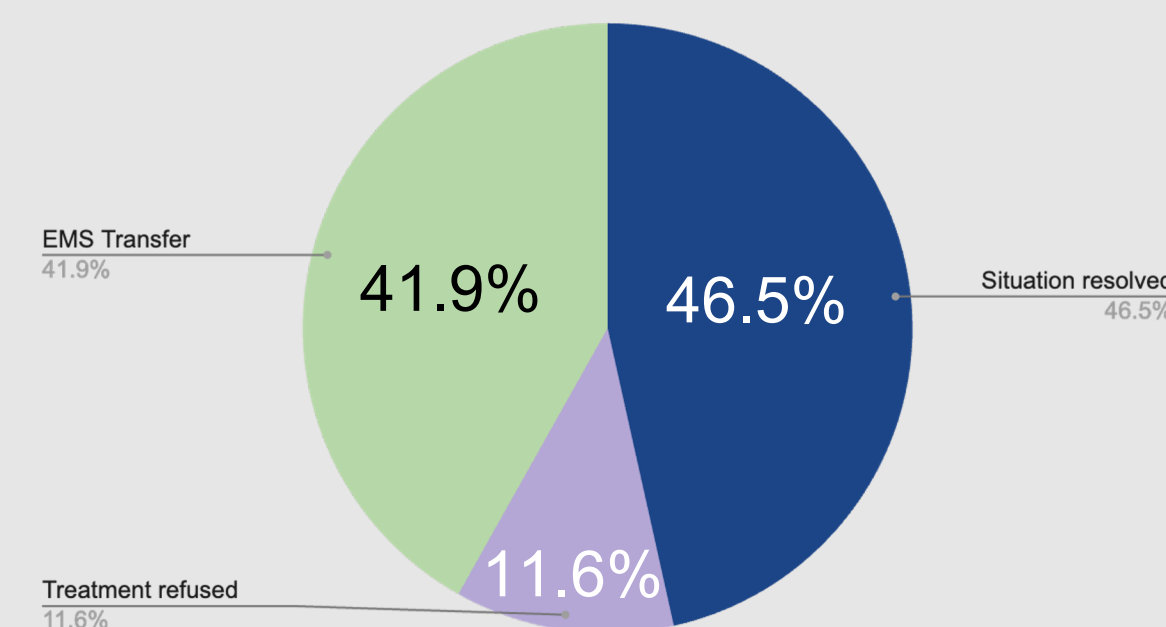


Figure B: Resolution of Total Activations 07/2022-04/2024

## CALL STATISTICS

From the initiation of our new medical emergency response system in July 2022, the ERT has responded to 47 incidents of which student teaching interns have been involved in 100% of these situations. Using ERT incident report forms, we retrospectively categorized each call to our current bi-level response code categories. Of the total ERT activations, 60.5% of medical emergency calls were for situations such as syncope, mild hypoglycemia, or other non-life-threatening conditions (Code **LILAC**), and 39.5% of ERT activations were for life-threatening medical emergencies, such as myocardial infarction, narcotic overdose, head traumas, or choking (Code **BLUE**). (Figure A)

For ERT activations; 41.9% resulted in EMS transfer to a hospital. The ERT provided definitive management for 46.5% of activations. And 11.6% activations resulted in patients refusing care or transport. (Figure B)

With the recently implemented bilevel code response update, we plan to track the resolution of Code **BLUE** and Code **LILAC** incidents separately. Ideally, we will see a decrease in the number of EMS transfers for Code Lilac, as these incidents are typically within the scope of being effectively managed by dentists and their teams in the office-based setting.

# OKU Sutro Excellence Day Project Cover Sheet

## Project Title

Dugoni Medical Emergency Response Team

## Full name(s) and class year(s) of all project collaborators

*Example: Jane Smith, DDS 2022; John Smith, DDS 2022*

Alia Rubaie, DDS 2024; Kevin Adams, DDS 2024; Alini Agnes, DDS 2024; Dr. Jesse West Manton, Faculty

## Project Category

DDS/IDS - Community Health Service & Leadership Awards

## Enter your abstract text here (max 300 words)

Summary and acknowledgements: The Medical ERT Teaching Internship Program, established in 2022 by Dr. Manton, alongside six appointed crew chiefs, marks a pivotal initiative in Dugoni's medical education. As the original junior crew chiefs, we were privileged to contribute and found the pilot program. The program's original vision aimed to cultivate an intermediate medical emergency response, facilitating the crucial determination between "home or hospital" for patients in need. As we embark on our OKU project to showcase the achievements of the Medical ERT program, we extend our heartfelt gratitude to Dr. Manton for his unwavering dedication and tireless efforts in laying the groundwork for this transformative initiative.

Our project will discuss the foundation of the program and the training required to be a part of it. Each member of the Medical ERT underwent rigorous training in Advanced Cardiac Life Support, mastering advanced skills such as IV access, airway management, and the administration of ACLS and BLS medications, among others. During our excellence day presentation, we will use the clinic operatory to showcase the training workshops completed, and the equipment and supplies that we have been trained to use. Building upon the foundation laid by the original six crew chiefs, we conducted comprehensive interviews and successfully onboarded an additional ten D3s, amplifying the program's reach and efficacy. Additionally, the project will demonstrate the future goals and vision for the program's success. We will highlight the leadership roles within the program that have led to the continuation of the program.

Significance: Our project wants to highlight the impact of the program on the schools medical response team. We will compile the amount of calls we've responded to, the types of calls we've responded to and some of the interventions we have had to do. We are excited to showcase the benefit of this program and how much the members of the program have learned from our experiences.