

Forming and Optimizing Medical Emergency Teams (METs)

A Comprehensive Approach for Timely and Effective Response

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Introduction / Background

Examining the formation, structure, and optimization of Medical Emergency Teams (METs) as a critical component of hospital emergency response systems. Highlighting the significance of early intervention in deteriorating patient conditions, the paper delves into the key elements essential for the formation and success of METs.

Aim / Objective

The aim of the study titled "Forming and Optimizing Medical Emergency Teams: A Comprehensive Approach for Timely and Effective Response" is to thoroughly investigate, analyze, and propose a comprehensive framework for the formation and optimization of Medical Emergency Teams (METs) within healthcare settings of Rukmani Birla Hospital Jaipur.

Study Design / Methodology

Mixed-Methods Approach: Utilize a mixed-methods research design to combine quantitative and qualitative data collection methods in a multi-specialty 230-bed tertiary care referral hospital serving Jaipur City. The hospital contains mixed medical and surgical ICU of 75 beds in number under an intensivist-led closed model with senior residents' staff and round-the-clock senior nursing staff availability. Data was collected for nearly one year between April 2023 and Feb 2024 for 136 cases.

Key Words

Rapid Response Team, Rapid Response System, Medical Emergency Team, deteriorating patient, Patient Safety.

Formation

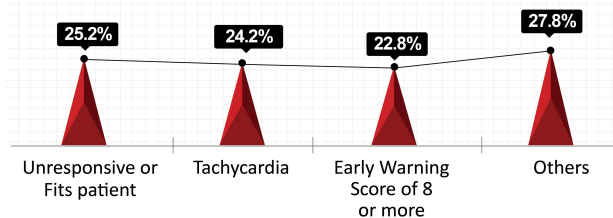
METs is a physician-led team, the foundational elements necessary for the successful formation of METs, includes a Skilled Intensivist in ICU, a respiratory physician, Senior ICU team lead. This physician-led METs cohort showed relatively high rates of intervention, including arterial line insertion and portable ultrasonography which facilitates faster interventions.

Results/Finding

Quantitative Findings

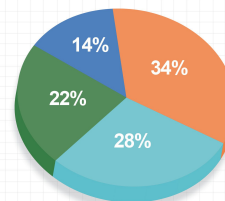
Q. What are the METs trigger and underlying conditions?

TRIGGERS FOR METs

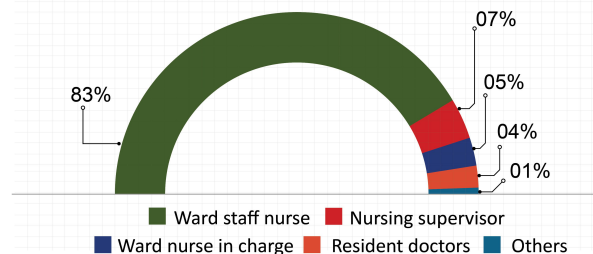


MOST COMMON UNDERLYING CONDITIONS

- Neurological Causes
- Cardiovascular Failure (Hypotension and pulmonary oedema)
- Respiratory Failure
- Sepsis



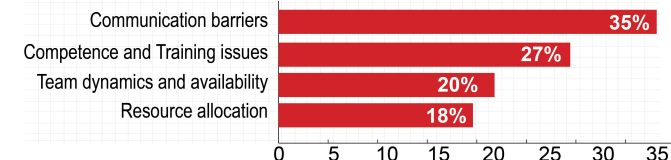
Q. Communication Strategies: MET Code Activation done by?



Qualitative Insights

Q. What are the Challenges?

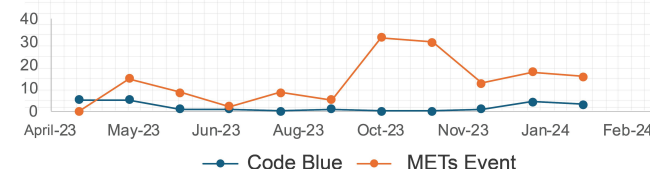
CHALLENGES FOR ACTIVATION



DISCUSSION

METs plays a critical role in early intervention much needed for the medical emergencies, post operative surgical deterioration and prevents adverse patient outcomes. It also results in robust drop downs in numbers of Code Blue (Cardiac arrest) on floors and ICU.

CODE BLUE V/S METs Event



CONCLUSION

MET clinical excellence is an ongoing process that necessitates a commitment to continuous improvement and adaptation. The study provides a robust foundation for healthcare institutions to enhance their emergency response capabilities by forming and optimizing METs. The team detects the deterioration of the condition of patients by early screening and begins ICU-level management at the patient's bedside without delay, confirming patient safety and low morbidity and mortality.