

**Abstract****Original Article**

## **The Functioning of a Medical Emergency Team at a Finnish Hospital: A Quantitative, Retrospective Study for Quality Improvement**

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**Abstract**

**Background:** Medical Emergency Teams (METs) were developed in response to the low success rate of Cardiopulmonary Resuscitation (CPR). The MET process is based on recognizing a patient's worsening condition early to avoid CPR. MET usage is still sub-optimal in Finland and many other countries. Knowledge regarding its function in practice is scarce. Thus, it is warranted to assess it.

**Objective:** Analyzing the function of MET at Kuopio University Hospital (KUH) in Finland.

**Methods:** In this quantitative study, the registered data, recorded by MET team per MET call activation at KUH in 2013 and 2014, were analyzed retrospectively. Descriptive statistics cross tabulation and Chi-squared test were used.

**Results:** The distribution of MET calls varied over shifts, weekdays and months. Day shifts (70%) received more calls than night shifts (30%). Fridays received the highest proportion of MET calls (16.6%), and Sundays the lowest (11.2%). The mean time Nurse 1 spent on MET calls was 31.71 minutes (Standard Deviation=16.73), while Nurse 2 spent 30.21 minutes (Standard Deviation=15.57). The four most common reasons for activating MET were: "other reasons" (35.3%), "poor general condition of a patient" (33.1%), "O<sub>2</sub> sat < 90" (27.8%) and "loss of consciousness" (22.4%). Following the MET calls, about one-fifth (20.7%) of patients were transferred to the Intensive Care Unit, 3.8% to the Intensive Cardiac Care Unit (CCU) and the rest (68.1%) remained either in the initial ward or was transferred to another ward.

**Conclusions:** Although METs are becoming a popular patient safety initiative, there is not enough knowledge about how they function in hospital settings. There is a strong need for an international cooperation on patient safety to improve the hospitalization and healthcare quality.

**Impact of the study:** The results of this study can be used for quality improvement of the METs function to provide more evidence to improve the patient care.

**Keywords:** Rapid responses teams, Medical emergency teams, METs and Patient Safety.