

# The Influence of Government Policy on the Tendency of Triage in Emergency Department in Taiwan

Chia-Hui Cheng, Yi-Ting Lien, Ching-Feng Chiang, Chung-I Huang  
Joint Commission of Taiwan, New Taipei City, Taiwan

## Background

Emergency departments (ED) overcrowding is a serious public health issue. This situation has been linked to prolonged waiting room times, increased number of patients left without being seen and decreased patient satisfaction. To cope with this issue, across the globe follow a triage system. In Taiwan, government fostered the policy and implement Emergency Medical Service System (EMS) Program since 2009. The EMS set the criteria of each indicator on the basis of diseases to encompass the needs of the majority patients and enhance the quality of hospitals. To ensure the patients with the highest level of severity or risk are seen in a timely manner, optimizing overall patient safety, and the government set the aim of the indicators by phases in 2015. The aims of this policy are as follows: the retention rate of emergency patients observed or wait for hospitalization over 48 hours less than 7% in 2015, less than 4% in 2016, and after 106 years is 0 or less than the average of the peer. The objective of this study is to explore the influence of government policy on the tendency of triage in the emergency department in Taiwan.

## Methodology

The capacity of EMS participating hospitals determined by the emergency services, human resources, facilities provided and the evaluation results. According to the EMS system, hospitals divided into three levels, such as severe level, moderate level, and general level. The process begins with an on-site survey that assesses compliance with EMS standards, which are conducted by 4 to 6 surveyors in 4 hours with a 4-year evaluation cycle. This study used 2012-2015 data of nineteen severe level hospitals from the National Health Insurance Database in Taiwan. Statistical analysis methods included descriptive statistics, t-test. The definition of triage from Level I to Level V are as follows (Table 1)

## Results

According to these findings from 2012 to 2015, there is no significant between emergency patients wait for hospitalization over 48 hours and triage in emergency department. The tendency of ER examination from Level I to Level V is as follows (Figure 1):

1. Level I (RESUSCITATION): the percentage was decreased from 3.6% to 3.2%.
2. Level II (EMERGENT): the percentage was decreased from 17.0% to 16.5%.
3. Level III (URGENT): the percentage was increased from 63.0% to 67.8%.
4. Level IV (LESS URGENT): the percentage was decreased from 14.6% to 11.3%.
5. Level V (NOT URGENT): the percentage was decreased from 1.4% to 0.7%.

## Conclusion

The results show that the medical environment and disease patterns were not changed, the health policy would influence hospitals' behavior. Therefore, whether the health policy improves the medical quality or not, we need further study in the future.

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**Keywords:** Emergency Medical Service system (EMS), Five-Level Triage, external evaluation

Table 1. The definition of the ER examination in Taiwan.

ER Examination	Level I	Level II	Level III	Level IV	Level V
Emergency Level	RESUSCITATION	EMERGENT	URGENT	LESS URGENT	NOT URGENT
Waiting Time	immediately	10 minutes	30 minutes	60 minutes	120 minutes
Definition	Critical condition, life or limb need to be cured immediately.	Potential critical life, limb, and organ function, need to control and cure quickly.	Condition may continue to worsen, which need to treat urgently, the patient may be accompanied by obvious symptoms of discomfort, affect daily activities.	The condition may be an acute attack of a chronic disease, or a merger of certain diseases, which needs to be done in 1-2 hours in order to restore and avoid deterioration.	Condition is non-emergency, need to do diagnostic diagnosis or referral out-patient to avoid follow-up deterioration.

Figure 1. Tendency of ER examination in Taiwan in 2012-2015.

