

RESEARCH ON FACILITY DESIGN THAT TAKES MEDICAL AID STATION DURING DISASTERS INTO ACCOUNT

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Introduction

Currently, natural disasters are frequent, and so planning and setting up first-aid stations where disaster medical services can triage a large number of casualties resulting from devastating disasters and transport critical cases to designated Disaster Base Hospitals is essential. In the event of a disaster, it is important that medical care be provided quickly to a variety of people from children to the elderly. In order to efficiently deal with this need, emergency medical aid stations should be established in hospitals and schools. However, the optimal use of space, including furniture arrangement, for such facilities has not yet been clarified. Thus, this study aimed to take an architectural approach to explore the ideal configuration of emergency medical aid stations.

Method

Doctors and nurses providing medical aid were interviewed and asked to describe the ideal space for providing medical care in emergency medical aid stations. Also, follow-up interviews the ideal space of minor to treatment is needed immediately injuries. All interviews were recorded and summarized, and used to consider how medical aid station is carried out in the disaster acute phase.

Results

Necessary room to the medical aid and necessary furniture placement for medical aid stations was summarized. When a disaster occurs, healthcare workers are in the same situation as patients. They have limited resources for treating various patients and conditions, from children to the elderly and from mild to severe. Considering certain factors, such as building design, in advance can help ease this environment. In practice, when treating patients with mild conditions, it was found that placement of furniture in consideration of the speed of patient rotation was desirable. Meanwhile, when treating conditions ranging from moderate to severe, a larger space with furniture arranged to allow the whole space to be viewed was desired.

Discussion

Results revealed that a facility design accommodating medical conditions from mild to severe is sought. For efficiency minor injuries treatment, there are many patients, so it is important the room that can be easy to access. So that a room that can be accessed from the outside is important. However, severe injuries are necessary to be able to quickly prepare a space of sufficient size. Space for the treatment of severe injuries is needed immediately to reduce danger to life. Therefore, a nearby location should be made available for treatment with as little delay as possible. Facility designs that allow for these adaptations are required.