

# Evacuation safety of the hospital A in case of Fire

Akiyo Fujikawa (K110616)

Keywords: hospital, questionnaire, risk assessment, NFPA101,

## 1. Research background

It is important to evacuate the patient from in case of fire. But some patients cannot evacuate by themselves. Each staff in hospital has an obligation to evacuate patients. And at the fire in night the difficulty of evacuation increases. It is important for the staffs to learn fire knowledge and means of escape. In this research, hospital A in which the author works is made into an example, and the points to improve and the corrective strategy of refuge safety at the time of fire are examined. Table 1 shows the details of the hospital A.

## 2. Study flow

Fig.1 shows the study flow. Two methods were used. One is to summarize the opinions and ideas of workers and experts. The other is to quantify the fire risk by using the NFPA 101 and the FTA.

## 3. Discussion

Staffs have a sense of crisis about fire safety. But not participate in disaster drills. The reason of absence is to place priority to day-to-day work. It is better to improve the date of evacuation drills.

The typical plan of the hospital A was evaluated. The result of evaluation using NFPA 101 shows that the fire resistance of the wall between corridor and wards has the big influence to the score.

FTA analysis shows,

- Patients C ( who cannot evacuate by oneself) is in high risk.( Fig.2)
- To decrease the risk of patient C, to increase the number of nurse, to install a fire door (compartment) which divide the corridor, and, to minimize the time which the nurse transfer the patient, are efficient.

## 4. Conclusion

In the future, we are planning to conduct disaster drills, by collect a lot of people.

table1. Detail of hospital

Building	Hospital A	Buiding area	442.40㎡
	8 floors	Total floor space	3,125,99㎡
Construction yeat	1981	number of staff	112
Total number of	nursing care ward	65beds	
	general ward	50beds	

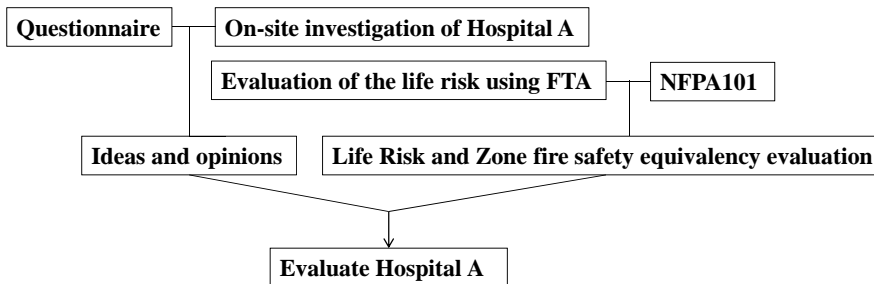


Fig.1Study flow

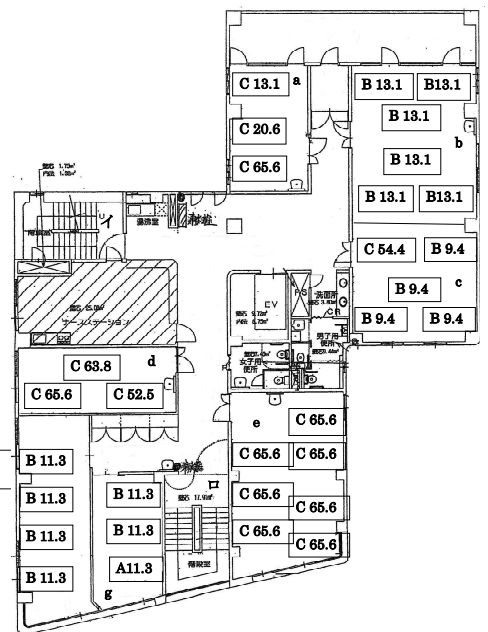


Fig.2. Risk of patients