



Background and Objectives

Staff shortages are common during hospital disaster response.

Three key areas were identified to support student participation in hospital disaster response.

Enhancing Knowledge and Skills

Building Trust

Clarifying Responsibilities

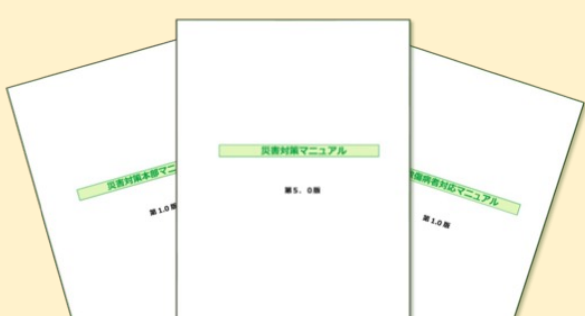
An evidence-based training curriculum for medical students was developed. This study implemented the curriculum and evaluated its effectiveness.

Methods

Developing the Curriculum

Data Source

Three manuals of Tohoku Medical and Pharmaceutical University Hospital



Extracted Tasks

Extracted Tasks

Total 486

Information Tasks

- gathering
- organization
- assessment
- sharing

Medical Tasks

- medical care and support
- triage

Other Tasks

- decision-making
- command and control
- rescue operations
- setup operations

Classified

with Difficulties for Average Medical Students

a) capable

- patient transport
- movement of equipment
- filing (documents, etc.) etc.

No need to learn

b) capable with simple training

- Telephone work
- negotiation for supplies
- creation of chronology
- creation of tables etc.

c) capable with advanced training

- operation of satellite phones
- data entry into EMIS*
- assessment of sanitary conditions
- implementation of triage etc.

* EMIS(Emergency Medical Information System) : This is a public disaster information-sharing system used in Japan.

d) incapable

- decision of team policy
- medical practice etc.

Insufficient by learning

Broken Down

Curriculum Components

Knowledge of Disaster Medicine and the Hospital

- overview of disaster medicine
- the role of disaster base hospitals
- hospital organizational structure
- hospital layout
- role of the disaster response headquarters (HQ) of the hospital
- common diseases during disasters and their treatment



Component Skills

- handling phone calls
- chronological logs
- lists and tables
- information mapping
- using a transceiver
- satellite phone setup
- EMIS operation
- triage etc.

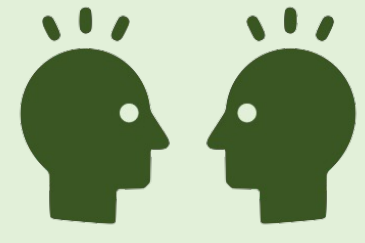
Results

Curriculum-Based Annual Training Overview

Training sessions were...



Held monthly



Conducted in person



Focused on hands-on training

See the Training in video

Scan the QR code to view a video summary of the training. Downloading, copying, or redistributing is prohibited. For inquiries, please contact the presenter.



Evaluation

Post-training self-completed questionnaires assessed participants' satisfaction and understanding on a 5-point scales.

Date	Training Topic	Planned Content	Implemented Content	Partici-pants (n)	Satisfac-tion	Under-standing
Apr/May,2024	Team Member Recruitment	Target : Medical students (3rd - 6th year) Participants : 17students recruited (3rd: 2, 4th: 4, 5th: 11, 6th: 0)				
Jun 27,2024	Introduction to Disaster Medicine	Learning basic disaster medicine, hospital disaster management roles, and team building	Lecture: overview of disaster medicine, the role of disaster base hospitals , hospital organizational structure	11	5.0	4.8
Jul 16,2024	Information Management	Practicing disaster information sharing and record-keeping (EMIS operation)	Workshop: team information sharing, telephone answering, EMIS exercises	8	4.5	4.5
Aug 2024	Recruitment of Training Preparation Staff	Initially prepared by the presenter, but following member suggestions, recruited 6 staff members (5th-year students)				
Sep 7,2024	Participation in Hospital-Wide Disaster Drill	Participated as players in the hospital's disaster drill; reflected on individual and team tasks	Reflection: review and feedback of the drill	7	4.5	4.2
Oct 21, 2024	Securing Personnel and Supplies	Lecture and scenario-based exercise on securing human and material resources during disasters	Lecture: resource management Workshop: securing supplies and personnel adjustment	8	-	4.8
Nov 11, 2024	Triage	Learning the theory and practice of triage, focusing on primary triage (START, PAT triage)	Lecture: triage Workshop: START triage	8	-	4.8
Dec 16, 2024	Communication in disaster situations	Learning information transmission during disasters and operating transceivers	Lecture: communication during disaster Workshop: walkie-talkie operation	5	4.8	4.8
Jan 20, 2025	HQ Operation※	Understand the role and specific activities of a hospital's disaster response HQ and learn how to set up the headquarters.	Lecture: role of the disaster response HQ of the hospital, hospital layout Workshop: simulation-based training on role of the disaster response HQ	6	4.8	4.8
Feb 17,2025	Disaster Treatment	Deepening understanding of trauma management in disaster situations	Lecture: Overview of common diseases during disasters and their treatment	7	4.6	4.6
Average				7.5	4.7	4.7

※ HQ Operation : Considering the low probability of students being present during the actual HQ setup, the training emphasis was shifted from physical setup procedures to a comprehensive understanding of operational workflows. Accordingly, the training format was revised to connect the tasks of each unit.

Discussion and Conclusion

- The training received high ratings in both satisfaction and understanding, indicating its effectiveness in enhancing knowledge and skills.
- The training also contributed to increasing students' interest in disaster response.

- Detailed objective evaluations for the effectiveness of the curriculum
- Coordination of accident compensation insurance

future tasks



Toward a strong and lasting foundation for student volunteers

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