SARS
severe acute respiratory syndrome
A special kind of infectious pneumonia which would affect some organ systems.

Symptoms:
- Fever
- Cough
- Headache
- Myalgia

Gastrointestinal symptoms: Nausea, vomiting, diarrhea

Prevention:
- Hand washing
- Covering mouth and nose

Treatment:
- Isolation
- Supportive care
- Antimicrobial therapy (if severe)

Diagnostics:
- RT-PCR
- Antigen detection

In late May 2003, the development of SARS had been confirmed in China. The majority of cases were concentrated in Beijing, Guangdong, and Guangxi.

Questions:
- How many medical staff members were infected?
- What was the mortality rate in different groups?
- What was the treatment outcome for different groups?

GOALS:
- Design of a mobile isolation, diagnosis and/or treatment unit for use in Ebola or other communicable disease epidemics

1-3 M.I.CUBE
1-Process, 3-Transformations, Mobility, Isolation – Cube

1. Transportation Lead To A Wide Range Of Infections — Local Isolation Is Important

2. High Rate of Medical Staff Infection — Resultant Medical Staff Is Important

3. High Proportion of Mental Depression — Psychological Care Is Important

4. Low Utilization of General Hospital after SARS — Ambulance Hospital Is Important

The Flow Chart Of Isolation Treatment
1. Solution And Transplantation

The Ambulance Transfers Patients Away From The Hazards Where Crowds Congregate

The Special Facilities Can Be Used To Treat Patients
2015 UIA-PHG International Student Competition
DESIGN OF A MOBILE ISOLATION, DIAGNOSIS AND/OR TREATMENT UNIT FOR USE IN EBOLA OR OTHER COMMUNICABLE DISEASE EPIDEMICS

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PI Pipeline Layout

The energy for everyday-life and treatment in the compartment is supplied by the precast equipment box of the shelter hospital. The pipelines are installed below the medical corridor base, attached to each prefabricated bathroom module and then connected to the compartments on the both sides.

Disinfection System

UV Disinfection Lamp Disinfection Carper Disinfection Spray Air Shower Sewage Treatment

Garbage Disinfection & Treatment Device

Medical Waste Living Waste Medical Clothes Equipment Room

The Flow Chart Of Isolation Treatment 3--- Shrink And Check

The Patients Need To Check In Advance Shrink The Isolation Unit To The Initial State Transport The Isolation Unit To The Medical Center The Patients Are In A Fully Isolated State During The Whole Process

Area Analysis Plan

Plan of Mobile Field Hospital Plan of Medical Unit

There are 6 medical modules in the medical technology area. With the number 5, the module to establish the combination system consisting of a reasonable nursing route. 2 isolation units are combined as a group of isolation ward. To coincide the isolation units, pre-fabricated bathroom modules are needed. As both the isolation unit and the bathroom module are a quarter of the standard small size, it will be very efficient in terms of transport.

The combination mode can be choosed flexibly in order to adapt to different terrain or to meet the needs of patients using medical equipment in the medical technology area.

Combination Mode