Proposal of Integrating Epidemic Control Principles into Healthcare System

Keywords: epidemic control, healthcare, emergency, hospital

Author: Huang Xiqiu PhD.
Consultant Chief Architect
China IPPR International Engineering Co., Ltd.

Address: No.5 Xisanhuanbei Rd., Beijing, China (100089)
E-mail: huangxiqiu@ippr.net

Design Concept for Covid-19 Facility

Key points proposed to be design concept integrated in epidemic care network planning and hospital design:

01 Control the Source of Infection
02 Break the Transmission Chain
03 Protect High Risk Groups

Structure of Health System for Emergency Public Health Issues

Framework of system:

- Command Center Headquarter
- Basic Goods Storage and Distribution System
- CDC and Laboratories Network
- Patient and Casualty Transfer System
- Manpower Data Bank: Health Workers and Volunteers in Public Health Sector and NGO
- Big Data Platform
- Information Collection and Media Release Office
- Psychological Working Teams

Examples:

Beijing Ditan Hospital
- 600 beds
- total bldg area 74,787m²
- completed in 3 years
- reinforced concrete skeleton structure or shell structure, equipped with related system
- built and installed with normal building techniques

Foshan 4th People’s Hospital Emergency Campus
- 1,000 beds
- total bldg area 7,230m²
- completed in 19 days
- based on prefabricated panels or container type boxes, including ready-made electrical and mechanical sets, assembled on site

Permanent Health Facility/Hospital
It provides health service during routine days and emergency periods

Emergency Health Facility
It provides extra health service capacity and works together with regular hospitals during emergency periods

Urban/Town Developing Plan
- The planning of healthcare facilities should be integrated into city/town developing plans together with their health-system plans.
- A city/town disaster prevention or mitigation plan should be developed in parallel.