ASIA PACIFIC PANDEMIC PREPAREDNESS AND RESPONSE REGIONAL FORUM

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Ministry of Economy and Finance

LESSONS FROM HOSPITALS' EXPERIENCES IN RESPONDING TO COVID-19

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BACKGROUND

Hospitals have faced diverse and serious challenges during the pandemic.

They suffered revenue losses due to a decline in outpatient visits, elective procedures, and surgeries.

Hospitals in middle- and low-income countries faced even greater challenges, as they were burdened with limited access to health care, worse health status, and poverty.

This policy note provides a review of hospitals' experiences in responding to COVID-19, with the goal of helping hospitals prepare and respond to the pandemic.

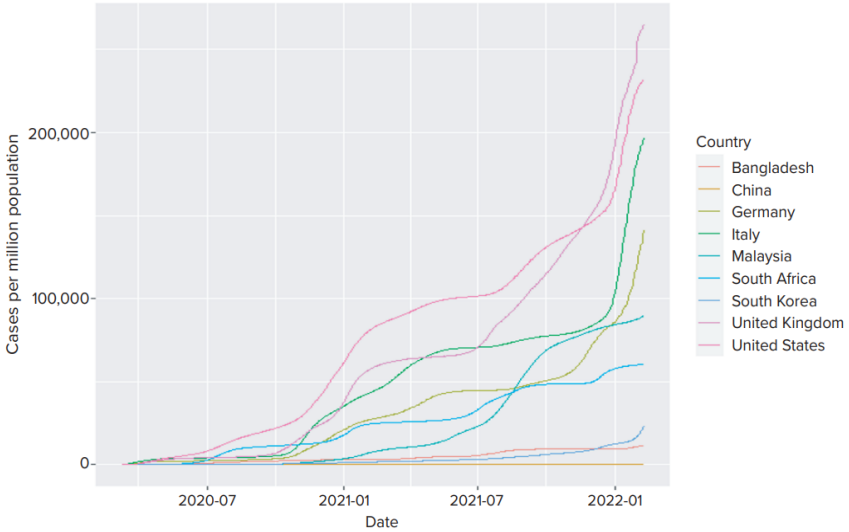
FRAMEWORKS AND PROTOCOLS

The German Society of Hospital Disaster Response Planning and Crisis Management

- The primary goal to be pursued by hospitals was defined as maintaining conventional or contingency care for as long as possible, while delaying crisis care.
- While maintaining the functionality of hospitals with nosocomial infection control measures, elective medical care can be reduced to increase hospitals' treatment capacity for COVID-19 patients.
- To increase hospitals' surge capacity for mass critical care, it is also necessary to mobilize trained medical staff to intensive care units by recruiting and training nurses and doctors from other specialties, cooperating with other health care institutions, and recruiting and training medical students.

INCIDENCE, HOSPITALIZATION, AND MORTALITY

Figure 1: Total Cases of COVID-19 by Country



Sources: Our World in Data (assessed on February 10, 2022)

Table 1: COVID-19 Patients and ICU Patients in Hospitals by Country

Country	Date	Patients per million population	ICU patients per million population
Germany	07/15/2020		2.9
	02/08/2021		47.2
	02/08/2022		28.5
Italy	07/15/2020	14.1	0.9
	02/08/2021	359.0	35.5
	02/08/2022	326.6	22.8
Malaysia	07/15/2020	1.7	0.1
	02/08/2021	106.8	12.6
	02/08/2022	104.6	4.2
South Korea	07/15/2020		0.3
	02/08/2021		3.7
	02/08/2022		5.2
United Kingdom	07/15/2020	28.9	2.2
	02/08/2021	392.1	47.4
	02/08/2022	199.2	6.3
United States	07/15/2020	101.4	27.8
	02/08/2021	230.9	58.1
	02/08/2022	280.5	55.1

Sources: Our World in Data (accessed February 10, 2022)

HOW TO SECURE BETTER ACCESS TO HOSPITAL CARE

Hospitals should maintain conventional or contingency care for as long as possible, while increasing hospitals' treatment capacity for COVID-19 patients.

One key concern of securing access to hospital care during the pandemic is the fear of nosocomial infection, the transmission of the virus within a hospital.

Accommodating suspected COVID-19 patients in single rooms or bays has the potential to reduce hospital acquired infections in patients by up to 35 percent; periodic testing of health care workers can reduce their infection by as much as 37 percent.

Korea expanded the capacity of diagnostic tests rapidly by expediting an approval system for urgent test-kit use and introducing both drive-through (drive one's own automobile for the testing process) and walk-through testing centers (walk through a one-person testing booth)

Some hospitals in Korea set up screening clinics outside of emergency departments (ED) to preemptively identify COVID-19 patients and prevent them from entering EDs and non-COVID hospitals.

Closing and reopening a hospital due to nosocomial infection demonstrated the importance of thorough contact tracing and testing of all health care workers and patients in containing hospital-associated outbreaks

MANAGING SURGE CAPACITY

It is also important for hospitals to efficiently mobilize resources and manage surge capacity during the pandemic.

A novel way to respond to a shortage of hospital beds under the surge of infections was to transform public venues such as stadiums and exhibition centers into health care facilities.

Korea also transformed dormitories and residential facilities into community treatment centers (CTC) for asymptomatic or mild COVID-19 cases to respond to a shortage of hospital beds.

These facilities isolated patients with mild to moderate COVID-19 from their homes, while providing medical care, disease monitoring, food, shelter, and social activities. They were an important alternative to isolation in homes and enabled staff to monitor patients frequently and refer worsening patients quickly to traditional hospitals. They were less costly to build and manage with fewer medical staff than traditional hospitals.

Telemedicine was used to minimize medical staff contact with infectious patients at CTCs in Korea.

RECOMMENDATIONS

1. A “full value chain” and comprehensive approach to health care delivery is needed rather than only improving hospital capacity, in responding to pandemics like COVID-19.
2. A pandemic requires rapid expansion of the capacity of diagnostic tests through the expediting of an approval system for urgent test-kit use and introduction of innovative testing processes such as drive-throughs and walk-throughs. Capable and reliable tests are crucial in controlling the spread of COVID-19.
3. The setting up of screening clinics outside emergency departments to triage COVID-19 patients and the creation of passages for patients with suspected COVID-19 to minimize cross-contamination have proven beneficial.
4. Hospitals’ surge capacity for mass critical care can be increased by mobilizing trained medical teams to intensive care units and reducing the ICU load by using intermediate care wards, postsurgical recovery rooms, areas of intervention, and operating theaters.
5. Public venues such as exhibition centers and residential facilities can be transformed into health care facilities to isolate patients with mild to moderate COVID-19 from their homes while they are provided with medical care, disease monitoring, food, shelter, and social activities.
6. Relaxation of regulatory guidelines and expansion of reimbursement and access to advancing technology, such as telehealth and virtual care, are needed to address public health needs and improve care efficiency during the pandemic.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