

Adapting buildings and equipment for the future

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IHF | Learning from COVID-19
**TRANSFORMING
HEALTH SERVICES**
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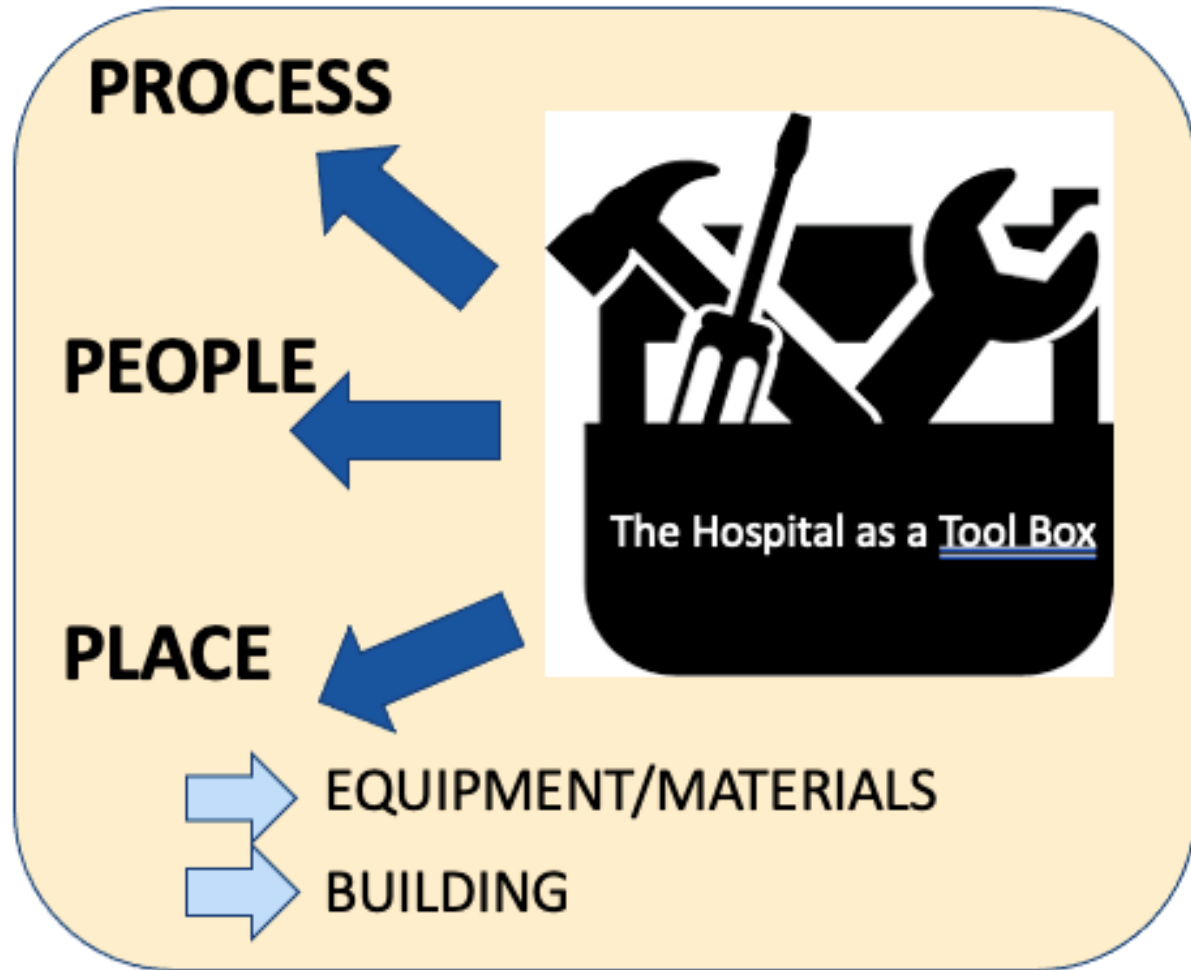
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#IHFCOVID19Forum

Future Facility Preparedness: Key Points in a Post COVID-19 Era

- I. Integrated Approach: Process, People, Place are inextricably linked
- II. “First, do no harm”
- III. Public Perception and Medical Distancing
- IV. Pent up demand for diagnostics and treatment modalities
- V. Need for new or expanded services

I. Process, People and Place are Inextricably Linked



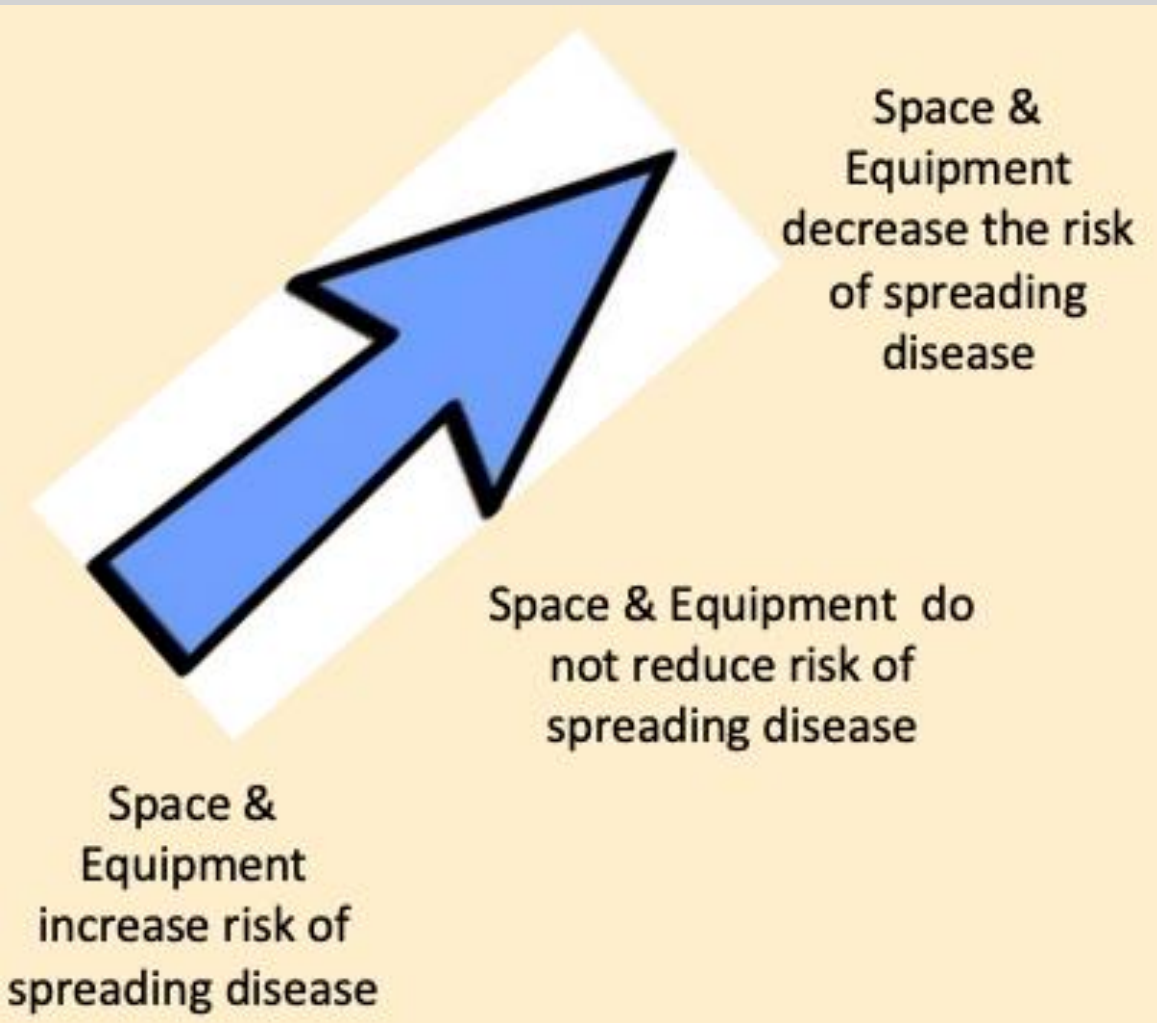
THE PLACE

The Building is the Vehicle and Equipment are the tools for provision of high quality and efficient services to patients.

RECOMMENDATIONS

- Changes to one, must include considerations and changes to the others
 - Policies and Procedures
 - Training Programs for Staff
- Plan and Design **nimble** space and equipment for changes in functionality

II. First, Do No Harm



RISKS

SPACE AND EQUIPMENT SHOULD REDUCE RISKS TO STAFF, PATIENTS AND PUBLIC
Infectious disease risks can be mitigated through: Contact, Ventilation, Circulations.

RECOMMENDATIONS

- Develop Proactive Risk Mitigation Strategies in Space Planning and Design as well as Equipment Planning and Procurement for:
 - Contact/Touch risks
 - Ventilation
 - Circulation of Patients, Staff and Public
- Plan and Design “Nimble” space which can be readily adapted.

II. "First, Do No Harm"

Contact/Touch



- In new design, consider location of sinks by patient room doors (increases handwashing compliance by >50%)
- Provide visible access to hygiene stations (1)
- Increase regular cleaning of high touch surfaces
- Reduce need to touch items.
 - Touchless exit at doors

Ventilation



- Consider separately ventilated sub-wait areas for screening prior to entry. (1)
- Consider use of Portable Forced Air System to convert existing space into Negative Pressure for respiratory isolation with HEPA filtration.
- Consider Portable Ante-Rooms for negative pressure space and donning/doffing of PPEs

Circulation of Staff, Patients, Public



- Separate access to space/buildings for:
 - vulnerable,
 - ill/risk exposed,
 - well patients and visitors.
- Segregate traffic & consider one way flow of corridors (1)
- Allow Space for Health Screenings at Access Points
- Consider compartmentalization options (1)

(1) Health environments Interior Recommendations for Business Recovery, HKS inc.

III. Public Perception and Medical Distancing

- Emergency Room Visits have declined from March to May ⁽¹⁾ by:
 - 23% for heart attacks
 - 20% for strokes
 - 10% for uncontrolled blood sugars
- During first peak of COVID-19, new diagnosis of six types of cancer were down by 50%; consistent with international data.
- Reduced cancer screenings from pandemic could equal 10,000 additional deaths from breast and colorectal cancer alone in the U.S. in the next decade (Dr. Fauci, NIH Director)

(1) U.S. Centers for Disease Control

(2) Defined as more deaths than expected in normal two (2) month period)



IV. Pent Up Demand for Diagnostics and Treatment Modalities

- Impact on building and equipment capacity
- Impact on potential increase in major procedures which would have been minor procedures ⁽¹⁾
- Resulting potential increase in acuity and ALOS for comorbid and chronic conditions ⁽¹⁾

(1) Johns Hopkins, September 4, 2020

RECOMMENDATIONS

- “Perception is Reality”: Publicly demonstrate your efforts to keep patients, employees and public safe.
- Communicate with patients, family and community.
- Consider Staff Respite Space: lighting, music, aromatherapy for stress reduction.
- Reduce variation in space configuration and processes to reduce medical errors.
- Increase quality controls: Quangdong Second Provincial General Hospital; use of cameras.

V. Need for New or Expanded Services

RECOMMENDATIONS

INCREASE CAPACITY:

- Increase Telehealth options
 - Provide access to equipment for telehealth
- Community outreach:
 - Community screenings (mobile units, outdoor screenings)
- Flexibility to increase capacity for pent up volume:
 - Increase hours of operation; particularly surgical suites and diagnostics
- Acuity Adaptable Rooms

NEW OR EXPANDED SERVICES:

- 20% of patients recovering from COVID-19 will require facility based rehabilitation. (1)
After 3 days in ICU, patients may lose up to 9% of muscle mass
Some reports of COVID 19 patient brain scans indicate they resemble that of traumatic brain injury.

(1) Journal of Rehabilitation Management



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