Adapting buildings and equipment for the future

Fábio Bitencourt

Architect D Sc, Professor
International Federation of Healthcare Engineering - IFHE
Adapting buildings and equipment for the future

A human perspective from architecture and engineering for a solidary and functional hospital

Fábio Bitencourt

Architect D Sc, Professor
International Federation of Healthcare Engineering - IFHE
Adapting buildings and equipment for the future:

A human perspective from architecture and engineering for a solidary and functional hospital

It is important to note that the perspective of combinations of diseases, injuries, accidents and tragedies can establish different scenarios of architectural and engineering solutions for each health assistance situation, so the hospital's functional solidarity can be considered as the first axis in the solutions for healthcare buildings.

Countries located in the tropics, and Brazil is one of these cases, have their particularities and specificities of endemic diseases that often require important emergency care. Of course, the current pandemic has no comparable parameters!
Countries located in the tropics, and Brazil is one of these cases, have their particularities and specificities of endemic diseases that often require important emergency care. Of course, the current pandemic has no comparable parameters!
Adapting buildings and equipment for the future:

A human perspective from architecture and engineering for a solidary and functional hospital

Some questions for all!

- How does the premise of solidarity work for building designed for health assistance?
- And what does this mean?
- What architectural and engineering factors should consider as fundamental to get the best result in hospital assistance?
Adapting buildings and equipment for the future

**Expansibility**

We will have to think hospitals more and more as elastic spaces that are not only giant buildings inserted in urban spaces, in cities. Good quality of hospitals for these situations depends on favourable conditions for expansion. Designing each time more elastic and supportive spaces and facilities.

**Flexibility**

The subdivision of the physical space or the functional subdivision, of the activity that takes place in the environment, can be a strategy of functional solidarity, flexible solidarity for each hospital building. Enable faster and more agile operational changes.

**Contiguity**

Propose spaces combining essential services for patient care (grouping procedures related to those at risk of death or profound suffering) reducing the routes and time of care. Functional neighbourhoods, vicinity, within the hospital itself should be the focus for reducing to what is essential for each sector with a view to health assistance solidarity.

**Conectivity**

The connections between the environments must have their respective connection with the building facilities (electrical, hydraulic, sanitary, air conditioning etc.) and special ones (oxygen, hydrogen, vacuum and compressed air...) in the functional ordering and in the rational agglutination.

**Conformity**

Functional spaces and environments in the hospital must be in agreement to what has been planned to be performed and executed, being a true function for that location.
Adapting buildings and equipment for the future

Fundamental aspects for a solidary and functional hospital:
- Expansibility
- Flexibility
- Contiguity
- Connectivity
- Conformity

The order of the aspects presented is not necessarily the order of value or priority.

Solidarity in the use of the hospital's own internal spaces should show, in many cases, that it is not necessary to build anything new. Just divide and share functions: permanently or temporarily.

Nothing must blunt the plasticity and care for human comfort.

#IHFCOVIDForum
I thank you all for your attention

Fábio Bitencourt
International Federation of Healthcare Engineering (IFHE) - Executive Committee

https://www.ifhe.info/
fabiobiten@gmail.com

https://br.linkedin.com/in/fabio-bitencourt-arquiteto