

Hospital: the day after

Why Digital Technology is essential to make the hospital “smarter”¹

In recent months I have had a lot of conversations with professionals about the absolute necessity to modernize the healthcare system. I have also read many articles and publications ²which take the same view. While this issue has long been forthcoming, today the crisis has accelerated the debate and highlighted the urgency of taking action. With this in mind, I would like to share my feelings and first conclusions.



The COVID-19 pandemic with the Shelter-in-Place orders of more than half of the global population,

huge ingoing flows of patients and the saturation of the hospitals has revealed the critical need to speed up the transformation of the entire healthcare system. Now we can start to learn lessons from this unprecedented crisis and implement solutions to the new challenges ahead.

In response to this global Health crisis billions³ of Euros, Dollars, Pounds, Yen, Yuan... have been injected by public bodies to deal with the emergency and even more billions will be injected in the coming months to accelerate the

transformation of hospitals in particular and more generally of the entire healthcare system.

We have learned a lot with the current pandemic and no doubt the hospital of the post COVID-19 crisis may look quite different from the hospital of the day before.



Already before the crisis, a growing number of inpatient healthcare services were being pushed to outpatient ambulatory facilities⁴; however, the crisis highlighted that many complex and very ill patients will continue to need acute inpatient services and those potentially highly contagious patients need to be carefully managed and monitored from their arrival at the hospital (emergency care, normal admissions, outpatient medical consultation) and throughout the entire patient journey inside the hospital.

This multi-month global crisis has emphasized the critical need for more beds and hospital executives and governments should consider rethinking how to secure and optimize inpatient and outpatient settings, best manage patient flow, avoid cross contamination, secure the

¹ Mackensie Health : [Smart Hospital Vision](#)

² Deloitte : Hospital of the future : How digital technologies can change hospital globally. ©2017

³ Covid-19:

- [€3 billion emergency support for national health care systems](#)
- [Coronavirus spread prompts billions in healthcare funding](#)

- [Trump signs emergency coronavirus package, injecting \\$8.3 billion into efforts to fight the outbreak](#)
- [How the Coronavirus Is Helping to Fix China's Broken Healthcare System](#)

⁴ [Outpatient is in! 6 reasons why outpatient centers are growing](#)

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patient journey, provide security and wellbeing to care givers, optimize the mobile medical equipment fleet and provide real-time information to patients' families.

More than ever before, digital technologies are part of the solution and their integration into existing hospital information systems should help the current silo-based structure evolve to truly create an efficient healthcare facility system without visible or invisible borders; a system where patients and medical staff are the number one priority.

For the sake of clarity, it seems important to first start by defining what we mean by Digital Technologies here. It will allow to be sure that we are all talking about the same thing.

The first priority is to leverage digital technologies to improve and optimize patient journey⁵, care team collaboration and wellbeing, operations, capacity, safety and security and crisis management. And for hospitals to become the hospitals of the day after, digital technologies must be leveraged to transform care delivery and put the patient at the center of the organization with care givers as the main stakeholders.

In practical terms, when it comes to discussing digital technology, we must be aware that the Patient wants access to information anywhere and instantly upon request, and the healthcare system must provide it. The hospital is a big part of this process and to meet this challenge it needs to rely on digital technologies and exploit the data generated. However, while I'm convinced that accessibility of information is essential to pave the way for the hospital of tomorrow, it is also equally crucial to ensure that

personal health data is treated carefully with confidentiality.

In this context, the best way I have found to describe and name these digital technologies is to use the term: "Real Time Healthcare System⁶", increasingly used in the literature. First and foremost RTHS is a concept encompassing the collection and leveraging of data to enhance operational and care givers' collaboration as well as decision-making processes in real time to improve quality of care. This is better for the patient, better for the community and better for care givers and all stakeholders of the care pathway.



However, making the system better does not necessarily mean

buying more medical equipment and spending more and more money but rather making better use of investments with an emphasis on the collective interest, quality and efficiency of care, care givers' wellbeing at work, and patient satisfaction.

A Real-time health system positively impacts the quality of care, care givers' wellbeing, data privacy, security, operational costs, Operational Intelligence and efficiency and above all the patient experience. It's all about mobile technologies and data. It is no secret that the health sector is collecting more and more data. The issue is that the data is not easily shared between care providers and as there is no interoperability between the systems the data is often not used and rapidly becomes outdated. Even if it seems obvious for everyone that all care

⁵ Deloitte : Value of patient experience: Hospitals with higher patient experience scores have higher clinical quality. ©2017

⁶ Gartner : Healthcare Provider CIOs: Overcome COVID 19 Challenges with Real Time Health System Technology ©2020

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pathway stakeholders should have access to the same real time data, this is not yet the case.

In most countries, the COVID 19 crisis has revealed the real situation of healthcare facilities. The emergency management process, availability of beds and of equipment, crisis preparedness, coordination between all stakeholders have all been severely challenged and caregivers have had to compensate. This is the very point at which the Real Time Healthcare System can help to make things better by enabling organizations to know in real-time where patients and medical assets are to avoid new contamination inside the healthcare facility, to optimize patient flow and manage overall safety.



No doubt this crisis, as all crises in the past, will play an accelerating role

in the transformation of the healthcare sector and real time technologies will be one of the key pillars of this transformation.

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