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Alcimed is imagining the hospital of the future

Paris, November 8th 2016 – With the emergence of new technologies, the ageing population and the increasing of chronic diseases, the hospital, as known today, will go through massive changes in the next twenty years. Alcimed imagines the three wings that might constitute the hospital of the future in 2035.

A wing dedicated to care

In 2035, one of the hospital's wings will be a care wing. This structure doesn't welcome the patients suffering from chronic diseases anymore (including cancer): these patients will actually benefit from home care services thanks to the increasing number of connected objects and to the growing role of the « patient empowerment ». This care unit is dedicated to patients suffering from severe pathologies, and to elderly and dependent people, in the end of their life. This second category is the direct consequence of the ageing population, and makes of this care wing an end-of-life place.

Since the pathology became common in 2035, the hospital is focused on the patient. The specific services ("cardiology", "oncology", etc.) have disappeared. The health professionals are mobile, and move around the patients. This seems possible, as in Lille, in 2012, concepts of rooms of the hospital of the future, focused on the patient, have been imagined by the "CHRU".

Whether or not a given skill exists in the hospital, it is not the source of the complexity of this organization. It is indeed possible to involve a specialist, remotely, thanks to the telemedicine. The complexity comes actually from the care coordination around the patient. Nurses are in charge: their job has evolved thanks to the robots, that facilitated their daily life (dispensing of medicines, take of the body measurements, etc.)

A wing dedicated to the patient's data management

In 2035, the second wing is specifically dedicated to the patient's data management. The electronic records are properly implemented. By contrast, the world doesn't trust the GAFAM enough to give them access to the health data. Hospitals are the only structures that hold and centralize these data on a regional scale. Each medical visit, whether it's a taken test or data issued from a home sensor, is recorded. Data scientists develop algorithms that help the doctors in their treatment choices, and a warning center warns the appropriate people in case the data is disturbing.

A wing dedicated to well-being

In 2035, a third wing is dedicated to well-being. In fact, the algorithm development mentioned previously also allows predicting the risk of disease of each patient. In case of a high risk, a stay in hospital is proposed to the patient as prevention. It allows reintroducing the daily right gesture, in terms of sportive activity or diet. This wing is indispensable, since in 2035, 70% of the deaths are related to over-nutrition.

What about a wing dedicated to 3D printing?

Beyond the three fundamental wings in 2035, another wing could be dedicated to 3D printing. Drug impression would then be realized depending on the patient's needs. The authorization of FDA in 2015 for the printing of a first drug in the USA paves the way. Also, the nutrients that can impact the initiation, the development or the progression of the disease, personalized medicine, are all related to the diet: food preparation could be personalized and realized thanks to 3D printing.

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This hospital environment mutation will have a strong impact on the way drugs and medical devices are developed, and also on their issue to the health facilities and the patient, in a near future. *“It is necessary for the players in the pharmaceutical industry today to anticipate these important structural changes in order to keep and even intensify their position in a rapidly changing market, with many new entrants”*, concludes Delphine Bertrem, project manager at Alcimed.

About Alcimed

ALCIMED (www.alcimed.com) is an innovation & new business consulting firm, specialized in life sciences (healthcare, biotech, agri-food), chemicals, materials, energy; as well as aeronautics, space & defence. ALCIMED relies on a team of 180 highly-skilled individuals to help its clients with exploring and developing their uncharted territories, covering four key areas: New Technologies, Market Innovation, High-Growth Geographies, and Strategic Foresight. ALCIMED is headquartered in Paris and has offices in Lyon & Toulouse in France, in Germany, Belgium, Switzerland, the UK, the USA and in Singapore.