Genex Partners



A Cordence Perspective

Beyond the Pill

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In times of technological quantum leaps and increasing patient demands, drugs alone are becoming an insufficient answer against the background of holistic and complex medical approaches. This is resulting in the appearance of services going, 'beyond the drug', which provide the opportunity for better health outcomes, competitive advantages and new business models. At this intersection of technology, services, patient demand and business opportunity, pharma companies must move beyond to new services to remain competitive, and there's a lot to consider along the way, such as,

the market potential and the future of digital health tools and data what services are relevant and create added value for both patient groups and pharma companies

a broader look to patient experience

While investment in 'beyond the pill' services and devices are not a new concept, with the speed of technological advancement and tech start-ups entering the scene, the race is underway. To quote a former CEO of Novartis, "Whoever owns the data or having access to patient/customer data is going to have the power in the system."

Pharma companies are already embracing this shift in both their business culture and strategy by making significant investments. Examples include,

Sanofi, with their comprehensive diabetes management platform, providing both devices and technology, and Novartis, partnering with new tech start-ups, such as they have with Sanitas to offer remote monitoring and coaching for patients with advanced heart failure.

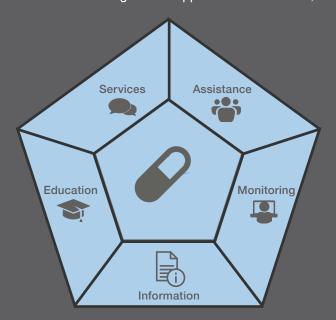
Market Potential

HCPs worldwide believe mobile health apps related to remote monitoring, diagnostics and medical condition management will have the greatest market potential over the next five year.

Likewise, the potential for advancing patient engagement through services and patient support programs is also an area of exploration for pharma companies. This shift in the healthcare ecosystem is driving pharma companies to review their business models. The opportunity it creates in addressing patient adherence is substantial. Consider that a 10% increase in treatment adherence could possibly lead to an annual increase in revenue of \$124 billion globally. Pharma companies will focus on building investments on well-rounded health solutions that support the patients in their treatment, thus improving overall health outcomes and ultimately leading to revenue generation.

Opportunities to go Beyond the Pill

There are five categories of opportunities to look at,



Services : Offerings supporting the patient in all major aspects, usually not directly associated with the therapy, e.g. financing. Industry examples include, copay patient and healthcare support program to pay the out-of-pocket expenses.

Assistance : Offerings helping the patient to manage their disease or side effects of treatment. Industry examples include, virtual reality experience to support the cancer therapy of children using collaborative gameplay to reduce negative feelings.

Education: Offerings to train or teach specific target groups, e.g. health care personnel or patients. Industry example includes, community for multiple sclerosis addressing patients and caregivers along the pathway of the disease.

Monitoring: Offerings enabling the patient to track their disease or therapy progress. Industry example includes, continuous glucose monitoring system to measure and track glucose level via mobile app.

Information : Offerings that provide knowledge regarding certain diseases and create awareness. Industry example includes, provision of relevant information on multiple sclerosis through a Virtual Health Assistant

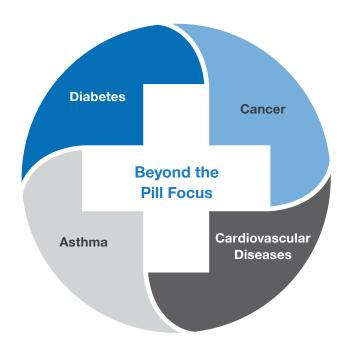


Digital Health Tools

Digital provides the option for pharma companies to consider these new 'beyond the pill' areas either as a service or perhaps even as new business models.

Mobile and wireless technologies are an important part of 'beyond the pill' services. Digital health tools help in collection, monitoring and analyzing health related information to improve patient adherence through personalized decision support, patient activities, designing treatment, etc. In 2016, it was estimated that there were 260,000 mHealth apps, generating 3.2 billion downloads, where top 12 pharma companies constituted just 5.6 million downloads (Healthmine 2016, Financial Times).

To date, the focus of most pharma companies has mainly been on diabetes, cancer, asthma and cardiovascular diseases. Notably, several companies are collaborating with tech start-ups to improve healthcare delivery, or have invested in this space, including Roche, Novartis, Pfizer, Lilly, Teva, Merck, Otsuka, Sanofi, J&J, and Novo Nordisk.



(ExecutiveInsight, Financial Times, MobiHealth News, Company websites).

When it comes to Patient Journey/Patient Experience, current pharma apps are largely focused on the treatment selection and condition management.

Services – Patient Support Programs

For certain drugs, including those with a low patient population and high cost, there can be value in developing a patient support program (PSP). An analysis for suitability of a PSP includes establishing the value proposition, understanding stakeholder needs, including hospitals, providers and patients, assessing the market situation, by competitive comparison, and then making a go/no-go decision.

After establishing the value proposition and alignment with business model and company levers, etc. the structure of stakeholder interviews can be made in three blocks:

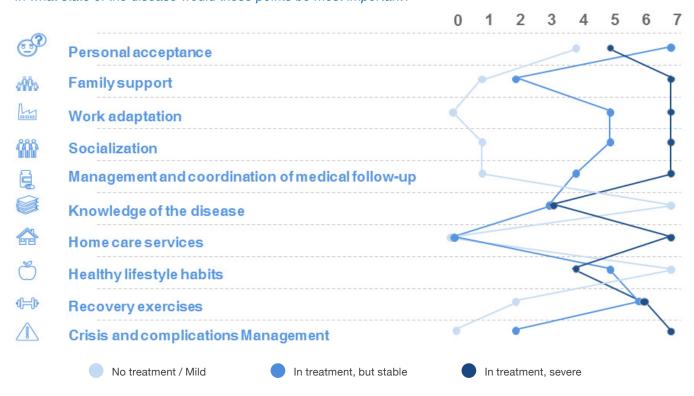
Medical management of the disease, including disease information, detection, access to

- treatment, flexibility of treatment delivery, complication management and medical follow-up
- 2 Adaptation to disease, such as adjustments made personally as well as within the social sphere and family environment
- **3** Life Habits, including physical exercise, nutrition, smoking, positive outlook, etc.

Patient needs and concerns change as the disease progresses and the PSP should be structured accordingly depending on the degree of affectation by the disease. This should also take into account the needs of patients as well as other interested stakeholders, like caregivers and doctors.

Patient needs and concerns change as the disease progresses

"In what state of the disease would these points be most important?"



Source: interviews conducted by Alfa Consulting of HCPs, patients, and payors from 2016 – 2018

The PSP should be structured in 4 blocks depending on the degree of affection by the disease







Creating Value

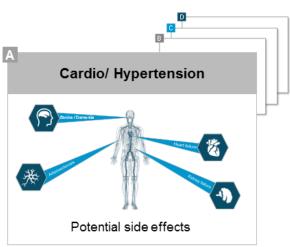
What are the relevant services which create added value for both patient groups as well as pharma companies?

'Beyond the pill' solutions need to be specific to therapeutic areas and customized to what has been identified to benefit the patient.

Specific to Therapeutic Area



Customized to patient needs and benefits



Patient Journey

Customized Services for specific Stakeholder Group and Region

Categorization

Services

For each pathology, in order to provide a holistic solution to the patient, the patient journey needs to be analyzed in depth, understanding what are the more evident patient needs but also what other stakeholders (family, HCP, payors, etc.) would appreciate so pharma companies can design a solution including digital and non-digital services that foster adherence and better condition management.

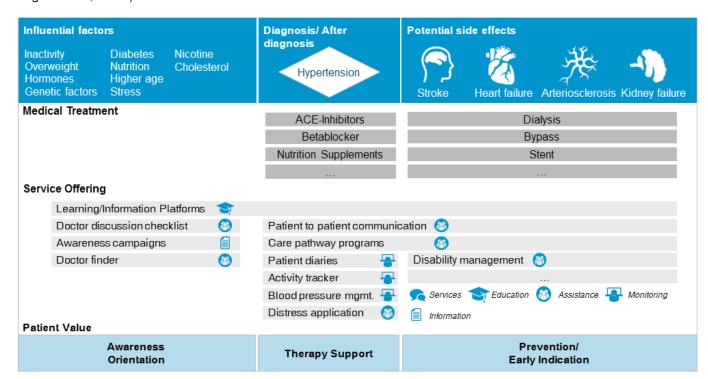
Designing services on a pathology by pathology basis, however, doesn't take into account the patient experience of those with multi-pathologies.

A case: hypertension and cardiovascular disease (CVD)

CVD claims more lives than any other type of disease worldwide. Hypertension is a dominant risk factor for CVD and poor patient adherence has been observed globally. Of the estimated 1.1 billion patients with Hypertension, it is believed that only 41% receive treatment and 13% achieve controlled hypertension (American Stroke Association, Journal of American College of Cardiology, Pan American Health Organzation, WHO).

The challenges in patient adherence range widely from forgetfulness, poor health literacy to side effects, the cost of medicines, or even inconsistent color or shape of pills.

The exemplary 'target picture' for the patient group from the therapeutic areas of both CVD and Hypertension might look something like this:





And multiple players have already developed customized services for CVD and Hypertension.

Cardiac Insight

Headquarters:

Washington, USA

Focus:

Wearable Medical and Computing technology for Cardiac Diagnostics

CardioSecur

Headquarters:

Frankfurt, Germany Focus:

A mobile, 22-lead ECG connected to an I-phone or I-pad to measure heart performance

EndoTronix

Headquarters:

Illinois, USA

Focus:

Providing digital health solutions for heart failure management and cloud based outpatient management system

Cardiologs

Headquarters:

Paris, France

Focus:

Providing ECG Analysis Platform and a cloud based cardiac monitoring analysis web service

CardiHab

Headquarters:

Brisbane, Australia

Focus:

Providing ECG Analysis Platform and a cloud based cardiac monitoring analysis web service

Headquarters:

ECG processing platform with Heart and Emotional Wellbeing predictive score

Hypertension





TactioHealth

Headquarters:

ÚSA

Focus:

Providing digital health solutions for management of multiple chronic diseases (includes Hypertension)

Cardiolyse

London, UK

Focus: Providing HRV and

AliveCor

Headquarters:

California, USA

Focus:

A single-channel cardiac event recorder enabling patients to record and review electrocardiograms (ECG's) anywhere and anytime

Welladapt

Headquarters:

California, USA

Focus:

Providing digital therapeutic solutions for reducing risks associated with hypertension

Proteus Health

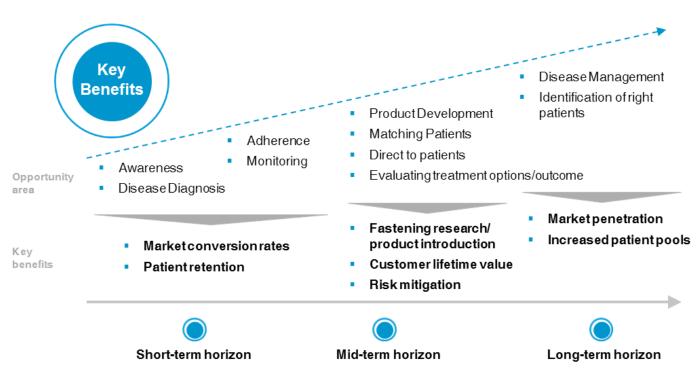
Headquarters:

California, USA

Focus:

Providing sensor enabled digital medicine for Cardiac and other diseases

The benefit for pharma companies in addressing the 'beyond the drug' approach for multi-pathology patients also enhances patient centricity topics and value chain improvements.



Industry stakeholders recognize the need for change in business strategy. Results from an Executive Insight Beyond the Pill global study showed that 94% of leaders agreed the existence of unmet needs in healthcare which presents significant opportunities for improved care and a requirement for generating new business strategies owing to rising pricing pressures. An overwhelming majority also agree on the necessity of a differentiating factor apart from drugs and that new barriers in market access require higher levels of added value.

Patient-centric opportunities will enable pharma companies to both connect better with their customers and improve profitability in the long run. The short to medium-term opportunities identified are around,

- adherence
- monitoring
- awareness
- access
- and evaluating treatment options and outcomes

with solutions such as telehealth, digital medicine, bio-sensors and patient engagement on the rise. Developing on the long-term horizon are solutions incorporating genomics, genetics and population health management.

The result of the emerging solutions is also the opportunity for value-chain improvements to enhance the operational performance and efficiency of pharma companies, moving forward. This includes improvements in areas such as product development, matching patients for participation in research, new indicators to increase the addressable market, doctor/patient interactions, and complete disease management, etc.

The way forward for pharma companies to stay competitive is to continue to invest in 'beyond the pill' services and technologies to reap the benefits, in the long term, by improving their own value generation, whether that be through developing partnerships, digital solutions or integrating services with products. When choosing a direction to pursue, consider these three key questions for consideration,

- Where to play?
 - Identify opportunities based on needs, market opportunities and competitive positioning.
- How to win?
 - > Check the viability of potential draft business model(s)
- What's the benefit?
 - > Develop relevant business case(s)



Notes	

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