Digital Transformation in the Pharmaceutical Industry: A Case Study

The problem: raising awareness of our client's lung cancer therapy

A top five pharmaceutical client was looking to boost their new lung cancer therapy, which was suffering from slow adoption. Research had shown that awareness of the therapy was low among physicians, who were uncertain about which patients were appropriate candidates for the therapy and which health plans covered it. When the client launched the treatment, they invested heavily in key areas – for example, promoting the therapy at conferences, in publications, and through Medical Science Liaisons (MSLs), Salesforce and multichannel marketing (including new digital channels). Despite this, the client was struggling to get physicians to use the treatment. This is because the lung cancer therapy space is so crowded and multi-tiered that it has led to physician inertia and confusion about the best therapies for individual patients.

We assessed the situation and found that, when multiple therapies are launched for the same condition, physicians are often not aware of the latest therapy guidelines around which option to choose. Even when newer therapies are more appropriate for a certain subset of patients, physicians often continue to use the established therapies for the majority of patients. Physicians treat a large number of conditions and, as such, it is not always possible for them to remember the intricacies of each treatment – regardless of how much the client invests in driving awareness.

Electronic health records can boost awareness of treatments at point of care

One of the newest channels that is helping to boost awareness of new therapies among physicians is the electronic health record (EHR). Due to the Affordable Care Act (ACA), there has been large-scale adoption of EHRs in both inpatient and outpatient settings over the past decade. EHRs are now the primary screens that providers use to manage their patients. The data that providers enter into EHRs – along with other data, such as lab results and imaging data – can be used by physicians to determine the best therapy for individual lung cancer patients. EHRs offer a channel to remind physicians of the various treatment options at the point of care, enabling them to decide on the best therapy for the patient, based on the treatment guidelines and FDA labels.

Our solution: best practice alerts for decision support at point of care

We determined that it would be possible to implement EHR-based decision support at the point of care, using decision support software that is integrated within the EHR. This software allowed us to write clinical rules for lung cancer that used EHR data to trigger a best practice

alert (BPA) to remind them about the best therapy for the patient at the point of care.
We carefully studied many elements when designing the clinical prediction rules, including treatment guidelines; the types of data physicians use when deciding on a lung cancer treatment; which EHR fields contain the data; and physician workflows.
Following the launch of the BPAs, we noticed significant engagement by physicians and a clear change in treatment patterns.

The benefit of real world data to both pharmaceutical companies and providers

The above example shows how real world data (RWD) is helping pharmaceutical companies transform their business models. Traditionally, pharmaceutical companies have only had access to research data and clinical trial data – it was not possible to access RWD, such as claims data or data from EHRs. Now, physician workflows are increasingly becoming digital, and almost all of the data is available in the EHR. As such, pharmaceutical companies can access data that has historically eluded them, which is transformative in terms of developing new treatments, improving clinical trials and commercializing treatments. RWD can also help them identify new indications for their marketed products, since they can monitor how the treatments impact the patients on an ongoing basis. RWD is equally beneficial for providers, who can get better support from pharmaceutical companies – not to mention a new source of revenue from de-identified data sharing arrangements. It is a win-win for the pharmaceutical industry and the providers.

The challenges of accessing RWD

Getting access to RWD is not easy, as many providers are concerned about privacy issues and exposing their patients' identities. De-identifying the data is not easy either, as much of it is in an unstructured format. As such, many providers are uncomfortable with data sharing arrangements.
As technology improves and safer ways of data sharing become possible, more providers should be willing to enter into data sharing arrangements. There are already organizations that allow pharmaceutical companies to remotely access data from a large number of medical centers in the aggregate for the purposes of clinical trial site identification, protocol design and research. Pharmaceutical companies will need this type of data as they venture into the realm of machine learning for drug discovery, clinical trial management and various other applications.

The importance of taking steps now for the future

The future of the pharmaceutical industry will be heavily influenced by digital technologies and clinical data. It's critical that pharmaceutical companies take steps now to build internal capabilities in these areas, as well as partnerships to secure access to large amounts of RWD.

About Ron
Dr. Ron Razmi is a digital health specialist. He brings extensive clinical, business and technical expertise to addressing key issues facing healthcare organizations today. He began his career as a cardiologist and was one of the pioneers in the application of MRI systems in managing cardiac patients. He built the software system cardiovascularmri.com to educate and train cardiologists in using MRI systems to manage their patients. As a McKinsey consultant, Ron worked with the world's top life sciences companies across strategy, M&A, and product development. In 2011, he founded Acupera, a population health management software company. This unique platform enables healthcare organizations to use data, care pathways, and AI to industrialize key aspects of care delivery and patient management. Ron completed his medical training at the Mayo Clinic. He holds an MBA from Northwestern University's Kellogg School of Management.