While healthcare is still in the early stages of its AI journey, we are seeing pharmaceutical and other life sciences organizations making major investments in AI and related technologies.

TOM LAWRY | National Director for AI, Health and Life Sciences | Microsoft

As pharmaceutical and other life sciences organizations invest in and deploy advanced technologies, they are beginning to see benefits in diverse areas across their organizations. Companies are looking to incorporate automation and continuing smart factory investments to reduce costs in drug discovery, research and development, and manufacturing and supply chain management. Many life sciences organizations are also choosing to stay with more virtual approaches in the "new normal" – particularly in clinical trials and sales and marketing areas.

Enhancing the patient and provider experience

Clinical trial sponsors are continually seeking to make clinical trials faster and to improve the experience for patients and physicians. The COVID-19 pandemic has accelerated the adoption of decentralized clinical trials, with an increase in trial activities conducted remotely and in participants' homes. In a McKinsey survey,[1] up to 98 percent of patients reported satisfaction with telemedicine. In the same report, 72 percent of physicians surveyed reported similar or better experiences with remote engagement compared with in-person visits.

The shift of trial activities closer to patients has been enabled by a myriad of evolving technologies and services (e.g., electronic consent, telehealth and remote patient monitoring). The aim to use technology to improve the patient experience and convenience has also broadened trial access to reach a broader, more diverse patient population.

"It's an interesting and exciting time right now," said Keren Priyadarshini, Regional Business Lead – Asia, Worldwide Health, Microsoft. "It used to be that physicians were key. Now, suddenly, patients are feeling empowered by technology. Pharmaceutical companies and other life sciences companies are realizing they have to pay attention to the patient experience in addition to the physician experience."

Enhanced patient experiences can be delivered in many different ways. One example of a life sciences product that leverages the intelligent cloud to directly affect the patient experience is the Tandem® Diabetes Care insulin pump. The Tandem® t:slim X2 insulin pump with Basal-IQ technology enables patients with Type 1 diabetes to predict and prevent the low levels of blood sugar that cause hypoglycemia.[2] The algorithm-driven, software-updatable pump improves the patient experience by automating chronic disease management and eliminating the need for constant finger pricks to check glucose levels.

Tandem was able to create and deploy this innovation by leveraging the AI and machine learning capabilities of the intelligent cloud. As AI and other technologies continue to advance, potential use cases will multiply. "Speed to value is going to continue to accelerate," said Lawry.

In addition to enhancing the patient experience, pharmaceutical and other life sciences companies can leverage advanced technologies to improve relationships with providers. For example, COVID-19 is driving changes in the way companies interact with clinicians. Prior to COVID-19, 75 percent of physicians preferred in-person sales visits from medtech reps; likewise, 77 percent of physicians preferred in-person sales visits from pharma reps.[3]

Since the advent of COVID-19, however, physician preferences are moving toward virtual visits. Only 53 percent of physicians now express a preference for in-person visits from medtech reps and only 40 percent prefer in-person visits from pharma reps.[4] That puts the onus on pharmaceutical and life sciences organizations to deliver valuable and engaging virtual visits to providers.

One way to do that is to leverage text analytics capabilities to enhance the provider information stored in the organization's customer relationship management (CRM) system. For example, a rep setting up a visit with 'Dr. X' could run text analytics on publicly available resources on the web to identify on which specific topics Dr. X has been writing about and commenting. "All kinds of publicly available information can

" *All kinds of publicly available information can be mined with text analytics technology, which can be used to arm the sales rep with relevant information even before he or she meets the doctor. It's a totally different, digital game now."*

KEREN PRIYADARSHINI | Regional Business Lead – Asia, Worldwide Health | Microsoft