

Delivering innovative patient care with Microsoft Azure Stack

MercyAscot Hospital uses Azure Stack to help save patient lives while reducing healthcare costs.

MercyAscot Hospital's integrated approach to healthcare delivery has already saved countless lives. Now the Auckland, New Zealand-based hospital is undergoing a digital transformation to propel its services to the next level. By adopting a new electronic medical record and patient administration solution built on Umbrellar, Microsoft Azure, and Azure Stack technologies, MercyAscot aims to enhance its value-based delivery model to further improve patient outcomes while reducing costs.

When a patient has an aggressive form of cancer, starting treatment quickly can mean the difference between life and death.

By pioneering a value-based method of service delivery that brings together surgeons, radiologists, pathologists, and other necessary providers in one room, rather than requiring patients to go to separate appointments, the MercyAscot Neck Lump Clinic has reduced the time it takes to complete a preliminary diagnosis and treatment plan. What used to take 8 to 12 weeks now takes 45 minutes.

The Neck Lump Clinic provides just one example of how the organization—which includes hospitals, radiology, and complementary healthcare businesses—is implementing a value-based delivery model to improve patient care and engagement and minimize healthcare costs.

MercyAscot is extending its value-based model beyond the clinic to more of its clinicians and patients by adopting a new electronic medical record and patient administration solution based on Umbrellar, Microsoft Azure, and Azure Stack technologies to support its hospital, clinic, and radiology operations. The organization plans to use these technologies to digitally transform its operations. MercyAscot expects to further improve clinical decision making and patient outcomes while increasing cost efficiency by consolidating

patient data, making comprehensive data accessible to clinicians and patients, and taking advantage of advanced analytics.

Leveraging a cloud-based platform to accelerate data access and deploy new services
Previously MercyAscot employed multiple on-premises patient medical record and administration systems. Umbrellar acted as a strategic cloud partner and IT team, helping MercyAscot embark on its digital transformation by moving to a cloud infrastructure based on HPE ProLiant for Microsoft Azure Stack. With this integrated hybrid cloud solution, MercyAscot can take advantage of the Azure services that Umbrellar hosts locally in New Zealand to run primary workloads and the hyperscale Azure services in eastern Australia to handle backups, disaster recovery, and business continuity.

“Standing up an infrastructure onsite wasn't financially sustainable given the scale to which we'd like to grow. Using Azure, the cloud delivers significant cost savings,” explains Dr. Lloyd McCann, MD MSc FRACMA, Chief Executive Officer, Mercy Radiology and Clinics, and Head of Digital Health at Healthcare Holdings Limited.

“Keeping all our data in New Zealand on Azure Stack reduces latency and improves performance, so clinicians and patients don't have a poor digital experience,” McCann continues. “At the same time, we benefit from Azure cybersecurity, uptime, and reliability.”

Sharing information to improve decision making
Running on Azure Stack, MercyAscot's new patient medical record and administrative solution will deliver a single source of the truth for patient data. It will make relevant information readily and conveniently accessible via the web to designated clinicians inside and outside the MercyAscot Hospital system, without compromising patient privacy.

Explains McCann, "Through interfaces based on the Umbrellar and Azure Stack infrastructures, clinicians will have easy access to all information, even scans and pathology results that reside in separate systems, in one seamless experience to greatly enhance decision making."

With the solution, patients will also be able to access their health records, permitting them to manage their health more effectively.

Employing advanced analytics to enhance diagnosis and treatment

After consolidating patient health and administrative information, MercyAscot and Mercy Radiology will employ advanced Azure capabilities such as machine learning and artificial intelligence to further improve patient care.

"For example, in Mercy Radiology, we plan to use AI to augment radiologists' workflows through actions such as lesion identification and tracking," says McCann. "We're also leveraging machine learning and advanced analytics to enhance our operational decision making. We've worked with Microsoft, Umbrellar, and Umbrellar partner Aceso to deploy this capability in a record five weeks."

Delivering greater efficiencies to reduce costs

MercyAscot expects to use the Umbrellar/Azure Stack solution to deliver services more cost effectively. Says McCann, "It's less expensive for us to turn to experts to deploy these capabilities offsite than to purchase servers and get our own team to stand up the infrastructure. By consuming services using an OPEX model, we gain more certainty around our costs and the service level we'll receive. Both that, and our ability to close information gaps by consolidating in Azure Stack, are huge efficiency drivers."

