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Virtual care when and where it's needed most
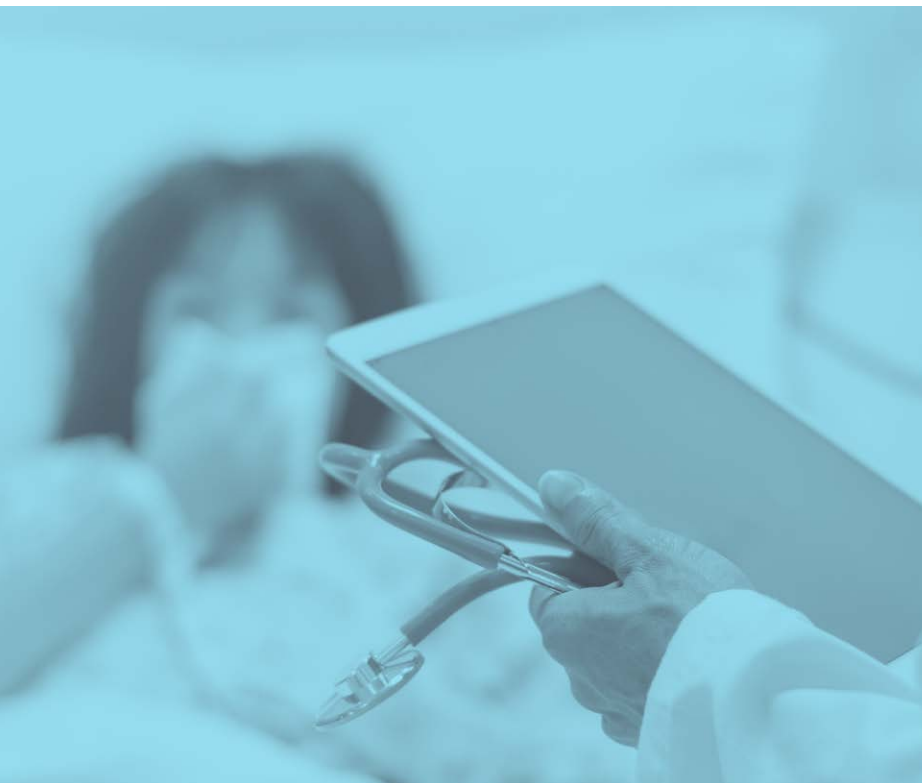
UCHealth
Aurora, Colorado

Rapidly moving telehealth forward

The need for remote care has never been greater. As the world navigates a global pandemic, many hospitals and providers are being propelled into virtual healthcare. But Aurora, Colorado-based UCHealth was already well on its way.

UCHealth includes over 25,000 employees, 12 acute-care full-service hospitals, more than 150 clinic locations and hundreds of physicians across Colorado, southern Wyoming and western Nebraska. The health care system saw nearly four million outpatient visits in 2019 alone.

At a Glance

- Launched Virtual Health Center in 2017 for specialized outpatient telehealth services

- Used Jamf to offer iPads at a patient's beside in 2018

- Digitally sterilized iPads between patients with Jamf Pro and Jamf Healthcare Listener

- Conducted over 1,500 outpatient telehealth visits per day at the early onset of the pandemic

- Implemented Virtual Visits powered by Jamf for inpatient isolation telehealth in 2020

In 2017, UCHealth launched their Virtual Health Center to meet the challenges of delivering medical care in a modern way. The care center offers Virtual ICU, Virtual Urgent Care, telemetry monitoring, and a number of other outpatient telehealth modalities that allow video communication between participants.

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> *UCHealth Senior Medical Director of Informatics*

"Video visits are a very efficient and safe way to triage what's going on. It's very hard for a patient to know when to see a provider in person and when is it safe to see them virtually," said Dr. Chris Davis, medical director for virtual health at UCHealth. "We can use a video visit to triage that issue and get the patient to the right care scenario at the right time."

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While this may have looked effortless to the outside world, the ability to offer this level of telehealth was years in the making.

Building on a telehealth foundation

Technology and medicine continue to go hand in hand. Beyond the latest in medical equipment, technology fuels how patients and providers connect and how patients and their families stay in touch.

In 2018, UCHealth began using Jamf to streamline their technology management and practices by offering an iPad at each inpatient's bedside. Across multiple UCHealth sites, hospital rooms come equipped with an Apple device so patients can stay in contact with providers and loved ones and enjoy some of the comforts of home, such as games and entertainment apps.

Patients also have access to the Epic MyChart Bedside app — a complete window into their inpatient experience. For example, a patient can view the members of their care team and list of medications and are able to easily contact caregivers.

To ensure privacy and healthcare compliance, each device is digitally sterilized between patients. This is done through Jamf Pro and Jamf Healthcare Listener, a unique electronic medical record (EMR) integration to Jamf Pro. By listening for an HL7 ADT command, Jamf Pro automatically triggers a remote action to wipe, reset and ready the device for the next patient — all without requiring a room visit from IT.

In other cases, iPads are provided to patients for more ad-hoc use, where they aren't assigned to a specific patient room. When devices are leveraged for shared use, Jamf Setup and Jamf Reset go to work to ready the device for the next user. More specifically, the Jamf Setup app can be used to quickly change between appropriate patient configurations. The Jamf Reset app can be used to manually erase the device in a few taps, for areas where an automated workflow isn't possible.

Empowering better workflows for care providers

These technology advancements are not limited to patients. For care providers, mobile devices can streamline clinical workflows for frontline care teams: yielding faster, informed decisions that drive better patient outcomes. UCHealth provides doctors and nurses iPhones and iPads in both a 1-to-1 and shared-device deployment model, empowering users with various apps to aid in the delivery of care.

For example, with Epic Rover on iPhone, nurses, phlebotomists and respiratory therapists can access patient records, securely chat amongst the care team and perform clinical tasks such as barcode medication administration, specimen collection, alert and alarm management, and more.

UCHealth is able to standardize its process to deploy Epic Rover, Haiku and Canto by using Jamf's integration with Apple School Manager and Apple's Managed App Configuration framework. Apps are remotely deployed to iOS devices — pre-configured with settings for UCHealth's Epic environment. This ensures a simple end-user experience, with security and compliance settings intact and enforced.

Delivering inpatient virtual care during COVID-19

Integral to UCHealth's ability to help so many patients has been their evolving healthcare technology strategy. Prior to the global pandemic, UCHealth completed 25 to 40 virtual outpatient visits a day. As virtual care needs drastically spiked, they were able to build off their telehealth foundation and ramp up from less than 50 virtual visits a day to over 1,500.

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> *Ed Horowitz,*
> *Multimedia Specialist for Clinical Informatics at UCHealth*

With Apple, Jamf, Epic and Microsoft serving as a catalyst to increase efficiency, UCHealth was poised to enhance the inpatient delivery mechanism, and extend this world-class virtual experience to isolated patients during the global pandemic.

As part of its strategy, UCHealth deployed Virtual Visits — a Jamf Pro integration to Microsoft Teams — as a way to connect providers with admitted patients, and patients with their families. iPads are configured by Jamf with the conferencing account in place — removing the need for accounts, logins and passwords.

"This type of integration allows us to offer provider-to-patient and provider-to-patient-to-family communication in a secure, PHI-compliant and safe manner," said Ed Horowitz, multimedia specialist for clinical informatics at UCHealth. "This also allows for rapid communication with the Palliative and Spiritual Care teams, providing comfort and support to patients and families in situations when visitors cannot be with patients at the bedside."

Providers are able to easily virtually make the rounds to their patients, and patients can simply connect with loved ones outside the hospital without IT ever having to touch the device. Further, once patients are discharged, Virtual Visits can help to automatically digitally wipe the device to prepare it for the next patient.

Virtual Visits helps save on precious personal protective equipment (PPE) for health care staff by allowing them to deliver telehealth from a remote location. Plus, at a time when patients need their loved ones most, they are able to stay in contact without requiring a potentially dangerous (or prohibited altogether) visit from their families should the patient require a hospital stay.

Instilling confidence in telehealth at home

Through UCHealth, patients now have an opportunity to take care of themselves and their loved ones without leaving the comfort and safety of home.

While it is important for patients to always go to the nearest emergency department when they are in need of emergency care or experiencing a life-threatening condition, virtual visits are available for patients who may be able to be diagnosed remotely — or need guidance on whether to see a provider in person.

"What a virtual visit allows us to do is to look and talk to the patient and try and get a sense of what bucket they are actually falling in to," said Davis. "Can they stay at home and isolate and stay the course or do they need to be seen in an emergency department and get other appropriate testing?"

At-home video calls allow doctors and nurses to adequately answer this question and provide patients with a prescriptive course of action.

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Staying the telehealth course

UCHealth plans to expand its Virtual Visits offerings, including the use of Apple devices paired with Jamf. Over the next 18-24 months, UCHealth is building a third inpatient tower at University of Colorado Hospital that will house hundreds of additional beds.

UCHealth's mission to promote individual and community health while leaving no question unanswered remains unchanged even in these uncertain times.

"Let's focus on you. Let's focus on your health. Let's see how we can optimize you and your health and let us be a part of it," said Markley. "Virtual visits allows us to be there with you."

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See how your organization can simpify inpatient telehealth and other Apple healthcare initiatves with Jamf. Learn more about Virtual Visits here.