



Preparing for and Responding to COVID-19

As the threat of COVID-19 spread towards Tennessee and the greater Metro Nashville region in spring 2020, Vanderbilt University Medical Center quickly began developing emergency preparations to alleviate the potential chaos and devastating impact the virus could have on the communities served by VUMC, as well as its patients, care team members and other employees.

CHALLENGE

Rapid spread of COVID-19 through U.S. threatened to overwhelm VUMC's capacity to assess and care for patients suspected of or diagnosed with the virus

SOLUTION

Customize and create integrations among various technology-based tools, including eStar, My Health at Vanderbilt and Zoom, to assess, communicate with, and care for patients who have, or may have, COVID-19

OUTCOMES

Increased bed capacity for specialized care for COVID-19 patients, reduced probabilities for infection spread through facilities and among employee population, and sustained focus on positive patient experience

“The amazing ability of our HealthIT partners to nimbly address issues around COVID has allowed for up-to-date guidance on diagnosis, infection prevention, clinical management, and treatment of suspected and confirmed COVID patients, thus creating a safer, more efficient process for our patients, faculty and staff.”

—Tom Talbot, MD, MPH

One particular area of focus for the Medical Center's preparations was work required of HealthIT. Multiple teams within HealthIT immediately went to work devising creative solutions to customize and create integrations among various tools, including eStar (VUMC's EHR), My Health at Vanderbilt and Zoom. Over the course of just a few weeks, the team delivered numerous innovative solutions, such as:

- Integrating into eStar assessment tools that help VUMC clinicians determine whether a COVID test should be administered, and updating those tools with ever-evolving guidance from federal and state authorities
- Adding new virtual beds in eStar dedicated to COVID-19 patients
- Adding notifications to eStar that alert clinicians to a patient's infection status (so infection prevention measures can be taken) and risk factors
- Streamlining documentation requirements for eStar to minimize burden on nurses
- Leveraging patient-facing communication tools that give instructions while awaiting

test results, offer real-time test results, and offer guidance on what to do in case of a positive diagnosis

- Putting in place flexibility to allow VUMC nurses and clinicians to “float” to COVID-19 units, and to permit licensed volunteers to quickly support care of patients
- Using tablets and video technology to enable clinicians to communicate with COVID-19 patients (minimizing infection spread risk)
- Deploying various visually rich dashboards to accurately monitor COVID-19 response resources

Within a short timeframe, the work of HealthIT resulted in numerous positive outcomes:

- Prevented VUMC from being overwhelmed by surge in COVID-19 patients
- Increased bed capacity for specialized care for COVID-19 patients
- Reduced probabilities for infection spread through facilities and among employee population
- Sustained focus on positive patient experience during uncertain time