

FACING UNIQUE
CHALLENGES

RURAL

and

URBAN

*How Carilion Clinic
Uses Centralization
to Provide Excellent
Care to All*



Collaborating to serve the community; a commitment to doing what's right for patients; unwavering in providing exceptional quality and service; showing compassion for patients every day; and fostering creativity and innovation in the pursuit of excellence. Simple, powerful words that represent the values of Carilion Clinic, a six-hospital system in Roanoke, VA—and why the team there decided to adopt a centralized approach to care, with a health system command center, in order to provide the best possible care.

A TRUE PIONEER

The benefits of a centralized approach to care, driven by a health system command center, are clear—operational alignment, improved efficiency, enhanced patient safety and satisfaction, and growth and sustainability. And Carilion is a true pioneer in this space having been an early adopter of this model in 2004—first by centralizing patient placement and eventually integrating their transfer center functions.

Carilion initially adopted this centralized model to solve the challenges associated with patient access and throughput because they simply had more patients than beds. As part of this initiative, they were also digging into patient length of stay and determining what services could be administered on an outpatient versus an inpatient basis. In addition, they were running at 95-98% capacity—which could be problematic for patients with time-sensitive medical issues. When the team centralized and simplified—and sent the right patient to the right facility—the result was a 40% increase in patient transfers to secondary campuses. As the center continued to grow and evolve over the last 16 years, the team has relocated to a new space—in fact they've implemented four centers since then, learning more each time.

"We've been doing bed placement and patient transfers out of our command center, known as the Carilion Transfer and Communications Center or CTaC, for two of our campuses since 2004. The CTaC also houses a communications center that provides dispatchers for the ambulance fleet, as well as three helicopters; environmental services; oversight for clinical transport operations; tight integration with utilization management

nurses, and soon-to-expand operations into a satellite room for remote telemetry as well as remote TeleSitters," says Paul Davenport, RN, MBA, NREMT-P-RET., CMTE Vice President-Emergency Services & Care Management. "We're proud that we've recently expanded our bed placement capabilities to include five locations, including three rural hospitals."

THE HISTORY OF TAKING COMMAND OF CARE—ON-SITE AND OFF-SITE

Carilion's first center was located in their flagship Roanoke hospital, simply because there was space available and it was given to the team. And while that first onsite location was convenient, the current center, which opened in October 2017, is offsite and built on the principles of high reliability organizations [organizations with systems in place that make them exceptionally consistent in accomplishing their goals and avoiding potentially catastrophic errors, which is absolutely essential at a health system] and the importance of shared situational awareness.

"Centralizing once siloed functions and opening a health system command center is definitely a learning process. Each time we've moved we found we needed a bigger footprint to operate from because once you realize the advantages of co-locating the different areas that impact hospitals throughput, you realize the benefits and synergies of having them in the same workspace," Davenport said. "We have nurses working in our transfer center and we have EMTs and paramedics working in our communications center. So, if someone says, 'I have a helicopter landing in 10 minutes and need an ICU

bed.' the team can make the necessary moves so the bed is ready when the patient arrives."

RURAL OUTREACH

While Carilion Clinic's flagship hospital is in metropolitan Roanoke, the service area is much broader with about 280 miles between the farthest practices, so CTaC helps Carilion serve the more than 1 million residents who live in mostly rural western and southwest Virginia. The challenges patients and providers face are very different in rural areas. Patients typically have less access to doctors, hospitals and specialty care; they often must travel great distances, which means being away from support networks and incurring transportation costs; and they're often uninsured. Being able to effectively manage these patients and ensure they receive the best care in the most efficient manner is critical to delivering beneficial clinical services.

Carilion knows this firsthand and that's why they have been focused on making a positive impact in their communities. For example, the decision was made to fully maximize the capacity of the network and "light up" additional hospitals. As a result, CTaC now has a complete view of the status and availability of beds at these sites, as well as the status of admitted patients, upcoming discharges, rooms that are being cleaned, and more. This makes it possible to effectively load-balance across the system, have more insight into patient wait and hold-times, keep patients close to home as long as they don't need a higher level of care at the flagship hospital, and improve satisfaction and overall patient flow

efficiency. "It requires a sophisticated, coordinated effort between Carilion's fleet of air and ground transport vehicles, our patient placement teams and each of the hospitals," said Davenport.

COLLABORATORS, COLLEAGUES—AND THE FIRST TELETRACKING CARE TRAFFIC CONTROL CERTIFIED™ SYSTEM

Carilion and TeleTracking have been long-time partners and collaborators. In fact, Carilion has been serving as a reference and a role model to other health systems that are beginning their command center journey. Recently the success at Carilion was recognized as one of the inaugural Care Traffic Control Certified health systems—which was announced at TeleTracking's Annual Client Conference last October.

For close to three decades, TeleTracking has recognized the benefits of a centralized approach to care—and how much effort goes into centralizing operations and integrating people, process and technology. That work is now being honored with the opportunity to become Care Traffic Control Certified™. In addition to creating a standard set of criteria to measure centralization success, the program is also designed to foster collaboration, innovation and continuous performance improvement between centers.

"We are proud of the impact we're having in our community, are pleased our accomplishments are being recognized and are excited to help others achieve the same level of success as a Care Traffic Control Certified health system," concludes Davenport.



PAUL DAVENPORT, RN, MBA, NREMT-P-RET, CMTE

Vice President-Emergency Services & Care Management

Mr. Davenport serves as the administrative leader for: Emergency Medicine (all Carilion sites), Emergency Residency Program, Carilion Roanoke Memorial Hospital's Emergency Department, Carilion Clinic Patient Transportation (CCPT), and Carilion Clinic's Operation Center (transfer, bed placement, and CCPT communications). In 2014, Davenport took on additional responsibility for Care Management and serves as the Interim Chief Nursing Officer for Carilion Medical Center.

Prior to his role as Vice President, Mr. Davenport was the Senior Program Director for Carilion Clinic Patient Transportation (CCPT) and Carilion Clinic LifeGuard. The program's services include 44 ambulances, three response vehicles, critical care ground transport, neopeds, rotorwing operations, communications center, area disaster coordination, mass gathering, contract 911 services, and injury prevention grant administration. Total volume for the service is over 50,000 transports a year. During this time, Davenport was recognized in 2006 as The Association of Air Medical Services (AAMS's) Program Director of the Year.

Davenport is a third generation EMS provider, and began his career as a volunteer firefighter in Chesterfield County, Virginia.

Mr. Davenport has a B.S.N. from Radford University and a Masters of Business Administration from Averett University.

In addition to his role at Carilion, Davenport is a private consultant, specializing in helping healthcare systems and transport agencies in improving teamwork, patient flow, integration, operations, and contracting.