



SUBMISSION FORM

All submission forms must include the following information. Separate submission forms must be turned in for each eligible program. **Deadline: July 1, 2025.** Please include this submission form as the first page of your electronic entry. If you do not receive an email confirming receipt of your entry within 3 days of submission, please contact [Gage Harter](#).

PROGRAM INFORMATION

County: Caroline

Program Title: EMS Drug Kit Transition

Program Category: Criminal Justice & Public Safety

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Title: County Administrator

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Executive Summary

In 2023, the federal Drug Enforcement Agency (DEA) made major changes to the Drug Supply Chain Security Act (DSCSA), which governs how EMS and fire departments handle medications listed on Schedules II through VI. EMS agencies were given an initial deadline of November 27, 2024 to implement a system to comply with the new regulations. Prior to the changes, licensed EMS agencies such as the Caroline County Department of Fire & Rescue (“the Department”) relied on hospitals to provide pre-filled drug and exchange services for used or expired medications.

The impact of the changes was dramatic. Local departments had to completely overhaul their operating procedures, stand up their own pharmacy and put in place all the necessary equipment, infrastructure, training and policies to do so. This new paradigm affected every licensed EMS agency in Virginia, from the largest localities like Fairfax County and Prince William County to small rural departments operating with very limited personnel.

The Caroline County Department of Fire & Rescue accepted the challenge head on and implemented an entirely new “hub and spoke” concept from scratch to dispense required pharmaceutical medications to EMS providers. The new process was implemented on October 23, 2024, more than one month before the original deadline. In doing so, the Department became a model agency and a statewide leader that many other EMS agencies – including those with much larger populations and resources such as Fairfax County – sought to emulate. Many came to Caroline for site visits to observe the set-up, infrastructure and policies and procedures in place firsthand and meet with key staff to learn from our success. Chief Moreau of Prince William County shared that the Caroline County Department of Fire & Rescue was critical to helping his department establish the foundation of its system. VendNovation, the company selected to provide the medication Automatic Dispensing Devices (ADD’s), confirmed Caroline’s impact as a state leader and expressed its appreciation for the “generosity and spirit shown by the team at Caroline County to the Fire and EMS community of the Commonwealth of Virginia during the “EMS Drug Kit Transition”.

2025 Achievement Awards
Virginia Association of Counties
Caroline County, Virginia

Program: EMS Drug Kit Transition

Category: Criminal Justice & Public Safety

Statement of Problem

We all hope that we will seldom, if ever, have a need for Emergency Medical Services (EMS) for ourselves or our loved ones. Despite pushing such thoughts to the back of our minds, we take for granted that a volunteer rescue squad member or career provider employed by our local government will show up quickly and help us should the need arise. We also take for granted that first responders will be well trained and possess all the necessary medications required to provide appropriate treatment on the spot. But no one ever stops to think -where do our first responders get these medications that can sometimes literally mean the difference between life and death? Who monitors and oversees the distribution of these powerful controlled substances to prevent fraud, theft and abuse? Who is ultimately responsible for their safe and proper use?

The answer until recently was relatively simple. Licensed EMS agencies such as the Caroline County Department of Fire & Rescue (“the Department”) relied on hospitals to provide pre-filled drug and exchange services for used or expired medications. This enabled firefighters and medics to carry medications in locked containers or “kits” that resembled tool or tackle boxes. Once medications were used in the field, the entire kit was exchanged at a local hospital and first responders were prepared for the next call with a new kit. EMS agencies did not have to

concern themselves with all the responsibilities, regulations, requirements and oversight that come with the handling of controlled substances.

This all changed dramatically in 2023. In that year, the federal Drug Enforcement Agency (DEA) made major changes to the Drug Supply Chain Security Act (DSCSA), which governs how EMS and fire departments handle medications listed on Schedules II through VI. The DSCSA is enforced in the Commonwealth of Virginia through the Board of Pharmacy. EMS agencies were given a deadline of November 27, 2024 to implement a system to comply with the new regulations (moved to April 2025 just prior to the November 2024 deadline).

It is not an exaggeration to say that the changes sent shockwaves through EMS agencies throughout the Commonwealth and the nation. A system that had been relied upon for decades had now been turned on its head. Going forward, many local departments would have to completely change their operating procedures, stand up their own pharmacy and put in place all the necessary equipment, infrastructure, training and policies to do so. This new paradigm affected every licensed EMS agency in Virginia, from the largest localities like Fairfax County and Prince William County to small rural departments operating with very limited personnel. Not surprisingly, many didn't know where to begin and struggled mightily to develop a plan to comply with the new regulations.

Meeting the new DSCSA requirements is a very complicated process that requires a tremendous amount of planning, analysis, organization and implementation to achieve. EMS agencies must create detailed policies and procedures for medication purchasing, storage, inventory management, dispensing, operational resupply, security and accountability, record keeping, diversions and disposal. In addition, personnel must be trained on new inventory

management systems, electronic verification processes and the proper storage and dispensing procedures.

Innovation/How the Program was Carried Out

From the very beginning, the Caroline County Department of Fire, Rescue & Emergency Management accepted the new reality and moved forward proactively and assertively to put a new program in place. By meeting the challenge head on, the Department quickly emerged as a leader in the Commonwealth and a role model for other localities to follow.

The Department began thinking through how to implement the necessary changes in December 2023. In February 2024, Fire-EMS Chief Jason Loftus made a presentation to the Caroline County Board of Supervisors outlining the magnitude of the impact of the changes to his Department. Work began that month on an implementation plan focused on five (5) strategic objectives:

- Licensure
- Warehousing
- Distributions
- Policy and Regulation
- Training and Education

A decision was made early on to create a central pharmacy room under the supervision of a Captain level position and dispense medications through vending machines at strategic locations throughout the County. With this structure in place, the Department will have the ability to control access to narcotics and medical supplies, while maintaining records and audit logs for accountability.

In April, the Board of Supervisors approved the hiring of a full-time Captain level position to manage licensure, policy, regulation and execution of the new pharmacy program. The Department completed construction upgrades to the new logistics warehouse pharmacy room and submitted a controlled substance registration application to the Virginia Board of Pharmacy for review. The Department continued to attend meetings with the Virginia Board of Pharmacy, Office of EMS, Rappahannock EMS Council, other fire rescue agencies and several other stakeholder groups to continue to research and develop policies, procedures and an implementation plan for the pharmacy program. During this timeframe, the Department also met and corresponded with vendors for medications, Automatic Dispensing Devices (ADD's) and medication tracking software and equipment needed to carry and secure medications.

In May, the Department took delivery of three ADD's to allow for the implementation of a "hub and spoke" system. Under this system, the pharmacy serves as the hub to store and manage medications and three locations with ADDs serve as the spokes or dispensing points from which EMS providers access medications to replace those used on EMS incidents. At the end of May, the Virginia Board of Pharmacy completed an on-site inspection of the pharmacy. During this time, the Department continued construction upgrade work at two spoke locations and staff met with leadership at Ladysmith Volunteer Fire Department (one of the County's highest call volume stations) to discuss options for establishing the third ADD location.

A milestone was achieved the following month when the Department received an approved inspection report from the Virginia Board of Pharmacy. Once the approved controlled

substance registration (CSA) from the Board of Pharmacy was received, the Department was able to submit an application to the Drug Enforcement Agency for CSA Registration.

In July, Department staff attended training related to pharmaceutical ordering and made its first purchase of medications. Staff also attended training on the VendNovation software, the online system used for managing medications from delivery to dispensing to providers in the field. This training assisted with the continued development and completion of the initial draft Standard Operating Procedures (SOP's) and processes for the new medication program.

In September, the Board of Supervisors appropriated funds to expand Ladysmith Volunteer Fire Station to accommodate the distribution of medications for EMS transport units. The Department received notification that its DEA registration application had been approved. Applications were submitted to establish additional ADD sites at the Fire-Rescue Administration warehouse and the County-owned Station 10 in Carmel Church. Controlled Substance Ordering System (CSOS) applications were submitted to the DEA.

The additional ADD sites at the Fire-Rescue Administration warehouse and Station 10 were approved by the Virginia Board of Pharmacy in October. All the research, planning and efforts months in the making culminated on October 23, 2024 when the entire system was activated and the Department began dispensing its own medications over one month before the original deadline of November 27, 2024. The total start-up cost of the implementing the new program was \$259,430.

Summary of How the System Functions

The pharmacy is located in the Department of Fire & Rescue logistics warehouse and functions as the hub in accordance with the DEA and Virginia Board of Pharmacy licenses.

Three locations throughout the County (Carmel Church, Ladysmith and the logistics pick up area of the warehouse separate from the pharmacy room) form the spokes of the system and were approved, licensed and inspected by the Virginia Board of Pharmacy. Each spoke houses two Automatic Dispensing Device (ADD's). The ADD's are stocked with medications from the pharmacy and EMS crews then exchange their medications using the ADD's. One ADD is similar to a coil vending machine with two factor identification (ID card and PIN) for Schedule VI medications. A second machine, similar to a small locker system, requires two providers to use both an ID card and PIN to dispense pre-sealed kits containing Schedule 2-5 medications.

Positive Outcomes to Service Delivery

As a result of the changes made to the Caroline County EMS system, providers have shortened wait times at the hospital since they no longer have to obtain replacement medication kits. In addition, the Department has seen a 20% increase in medication administration by field staff since the program's inception. This increase translates into better pre-hospital care for our community. We believe the increase is due to the ease in which providers can now replace individual medications.

Model for Other Localities

The Caroline County Department of Fire & Rescue was amongst the first EMS agencies in the Commonwealth of Virginia, if not the very first, to get a new system up and running in compliance with the changes to the Drug Supply Chain Security Act (DSCSA). Caroline County, with a population of approximately 33,000, quickly emerged as a statewide leader and a model for other localities to follow. This was due to the foresight and determination of the Department of Fire & Rescue, led by Chief Jason Loftus, to tackle the problem head on at its earliest stages and do whatever it took to develop an effective plan to operate as a stand-alone pharmacy. The

Department was supported every step of the way by a Board of Supervisors and County Administrator that embraced the changes early on and quickly met every request for additional funding with approval.

The Department of Fire & Rescue soon began receiving calls from other EMS agencies throughout the state seeking information and advice on how Caroline County was able to develop a program to meet the mandate so quickly. Much larger departments with vastly greater manpower, budgets and resources than Caroline wanted to know our secret. These localities included Fairfax County, Loudoun, Prince William, Stafford, Spotsylvania and York County as well as localities similar to Caroline like Goochland and Dinwiddie. All came to Caroline for site visits to observe the set-up, infrastructure and policies and procedures in place and meet with key staff to learn from our success.

VendNovation, the company selected to provide the Automatic Dispensing Devices (ADD's), confirmed Caroline's impact as a state leader in a letter from Regional Manager Becky Allen expressing appreciation for the "generosity and spirit shown by the team at Caroline County to the Fire and EMS community of the Commonwealth of Virginia during "the Great Drug Box Transition." "Caroline County has generously shared their wisdom and processes with many agencies in the Commonwealth and continues to do so. They patiently and efficiently created a workflow that many have used as a foundation for their implementations. Captain Ed Bonham graciously demonstrated the system to anyone who asked to visit. He is always willing to explain his workflow, show his system or answer a tricky question."

Chief Moreau of Prince William County shared that "[Captain] Ed [Bonham] was critical to helping us establish the foundation of our system." Many other agencies feel the same gratitude to the Caroline County Department of Fire & Rescue for setting an example for the

state to follow and making it significantly easier to find a path forward to implement this monumental change.