



Largest Inpatient Rehabilitation Hospital Network Implements Diversion Management Solution to Strengthen Connected Medication Management Strategy

Encompass Health is the largest US owner and operator of inpatient rehabilitation hospitals across 36 states and Puerto Rico. Encompass Health relies on advanced connected medication management solutions to fulfill its mission of providing high-quality, compassionate rehabilitative care to thousands of patients each day at its more than 150 facilities.

The Challenge

With over 30,000 employees – standardization has been foundational to Encompass Health’s success. Their connected medication management strategy initially focused on harmonizing technology across their organization with BD Pyxis™ ES System and BD Pyxis™ CIISafe. But, as they acquired additional facilities over the years, disparate, disconnected devices made managing their diversion program a challenge. **Shawn Myers, Vice President of Pharmacy and Ancillary Clinical Services**, said many facilities were using different medication dispensing cabinets, controlled substance management vault systems and analytics solutions which made it extremely difficult to provide standardized guidance and support for drug diversion prevention and detection across their health system.

“When it came to analytics, most in-market solutions had gaps that only provided a retrospective snapshot each month. While there was some useful data in those monthly reports, it was presented in a pretty complex way. In addition, one report was almost 100 pages long, which was intimidating for many of our pharmacy directors and clinical leaders,” he explained. “It wasn’t easy or intuitive to find the data they needed to make decisions. Many of them were frustrated with the lack of actionable information so we were fielding a lot of requests for detailed instructions on how to use the reports.”

Mary Ellen Hatch, Vice President of Nursing Operations, agreed. She said, from a nursing leadership standpoint, the monthly reports simply took too much time to review. “It was taking us so much time to look at the data. Our nursing leaders weren’t always able to take the time to dive deeper into such a very large report to determine what exactly might be driving some of the trends we were seeing,” she said. “Many of them were spending hours in tedious data review, which was just wasteful.”

Summary

Challenge

- Multiple diversion management solutions in use at different facilities
- Labor-intensive, non-intuitive reports

Solution

- BD HealthSight™ Diversion Management
- BD Pyxis™ ES System
- BD Pyxis™ CIISafe

Impact

- Strengthened connected medication management strategy
- Provided visibility to anomalous behavior and non-compliance with controlled substance policies
- Identified opportunities to provide nurses with education on controlled substance policies
- Identified opportunities to improve the medication use process
- Standardization supported creation of system-wide diversion detection and prevention policies and instructions on how to use BD HealthSight™ Diversion Management as part of comprehensive solution
- Integrated with existing electronic medical record, automated medication management and identity access management systems

The Solution

Myers and the Encompass Health team knew they needed to find a better way to enable their pharmacy and nursing leaders to monitor for diversion as it could lead to serious patient safety issues, staff safety issues, and significant liability risk. Reducing complexity and the time required for drug diversion monitoring became a critical priority for Encompass Health.

To meet their goals, Encompass Health established a multi-disciplinary team from nursing, pharmacy and IT to determine the criteria for a comprehensive connected solution that would support the needs of all 150+ hospitals inclusive of automated medication dispensing cabinets, controlled substance management vaults and advanced diversion analytics. The solution had to seamlessly integrate with their existing systems (electronic medical record system and identity access management system) and provide an intuitive, easy-to-use user experience.

They specifically wanted an advanced analytics solution that could help them:

- Improve surveillance of non-compliance with controlled substance policies
- Identify anomalous behavior that might be related to diversion
- Increase visibility to nursing practice using behavioral metrics and by drilling down into data on individual nurses to identify issues and better manage behavior
- Reduce the amount of time they spent on reviewing data

After a diligent selection process, Encompass Health chose to partner with BD for their comprehensive connected medication management solution. One of the primary factors was BD's HealthSight™ Diversion Management tool since it automates controlled substance reconciliation, utilizes advanced analytics powered by machine learning to identify anomalous

behavior, and provides an investigation workflow to assign cases and document results – all in one tool.

Myers said he and his team were particularly keen on the solution's dashboards that provide visibility into non-compliance with controlled substance policies and procedures at a hospital and care area level, as well as for an individual nurse.

“There's more to diversion detection and prevention than just transaction volume,” he said. “And while we saw that some vendors were starting to develop solutions using more real-time data, they really focused on the volume of transactions to highlight someone who may be a diverter. There are a lot of other data elements that can provide meaningful insights. We liked the idea that BD considered those elements – and used a variety of different data points to build a risk score.”



“While there are certainly regulatory requirements around diversion management, as an organization, we believe we have an obligation to make sure we are managing this issue in our hospitals,” said Shawn Myers. “BD HealthSight™ Diversion Management gives us confidence that we can get to the data we need when we need it. We do not and will not allow persistent diverters in our hospitals. That’s our duty and it’s great to have this strong solution to help support our diversion detection and prevention program.”

Shawn Myers
Vice President of Pharmacy and Ancillary Clinical Services
Encompass Health

Impact on Connected Medication Management

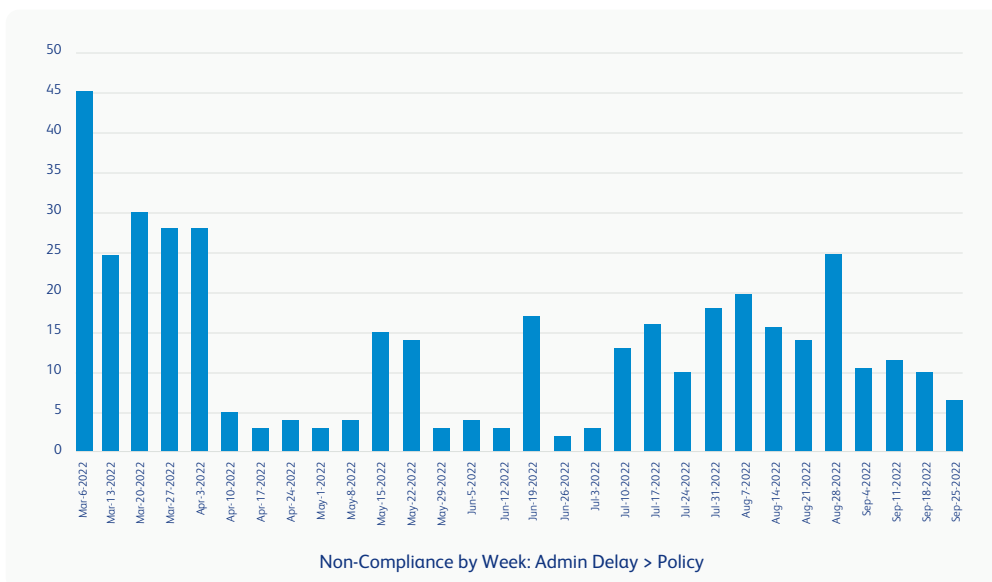
Hatch said one of the greatest benefits of BD HealthSight™ Diversion Management is how it supports the health system’s connected medication management strategy. BD HealthSight™ Diversion Management makes it easy for nursing leaders across the health system to review data in a timely fashion. She said it is now very easy for them to see if suspicious activities may be occurring and to drill down and identify who or what may be an issue, so they can determine the appropriate next steps.

“The challenge with diversion management is trying to always stay one step ahead of people who are coming up with crafty ways to divert drugs,” she said. “This software gives us visibility into who and what we should consider investigating. The data helps us know that our intuition about a person’s behavior isn’t just a coincidence.”

She went on to say, “Implementing the BD HealthSight™ Diversion Management software gives us an opportunity to look at each individual and the way they are managing controlled substances. Maybe they are always administering medication late, or removing medication from the cabinets too early – or doing other things that are indicators of potential diversion. We can then investigate and determine whether the activity is just a matter of a particular nurse needing more education to help her follow our policies or whether this is someone who is trying to confuse the system so they can divert drugs.”

“It not only helps us identify anomalous behavior so we can investigate if there is diversion – which, of course, is great – but it also identifies areas where we can improve our medication administration process,” she said. “If we see that a number of nurses in this one hospital aren’t administering controlled substances within the time that our policy stipulates, we know there is an issue with that process that we need to address. The information enables us to take a look at the medication use process as a whole and gives us a bigger picture, so we can improve our process and in doing so, help our clinicians and our patients.”

Myers added, “When we implemented BD HealthSight™ Diversion Management at one of our hospitals, the Director of Pharmacy identified a significant number of administration delay policy violations. He was very concerned about this. He spoke to the Chief Nursing Officer and the nurse educator at the hospital and together, they created and implemented a training program to educate the nurses on the policy. Subsequently, they saw a substantial, sustained reduction in medication administration delays.”



Operational Benefits

Myers said the adoption of a single solution across the entire health system made it easier for his team to develop more detailed and standardized operational guidance on diversion management for the health systems' 150+ hospitals.

"Having a single analytics solution enabled us to go back and look at our existing diversion program's policies and write guidance documents that provided clear instructions like 'In this type of situation, Encompass Health requires you to do this. Here's how you can use BD HealthSight™ Diversion Management to meet our policy requirements,'" he said. "Our onboarding team is now referencing that document with new hires so they understand just what to do. That's something we weren't able to do before so it's helping to strengthen our overall efforts to manage drug diversion detection and prevention across the system."

The benefits don't end there. **Tracy Foy, Vice President of Clinical Systems**, said BD HealthSight™ Diversion Management also provides advantages to her information technology team. She said the solution's ability to integrate with the health system's existing electronic health record and identity access management solution was a benefit.

"The solution really lends itself to a better workflow for our hospitals," she said. "But we also needed something that would be easily integrated into existing systems and easy to maintain. From a systems management infrastructure and information security process perspective, the functionality has been great for us. We have been able to easily integrate it with our existing identity access management processes so when a new employee comes on board, they get the access they need to the tool. We can also disable it in a very timely manner. With more than 150 hospitals across the country, having that level of control is a big win for us."

She and Myers also appreciate the ease and cadence of software upgrades, which are deployed with little disruption to the solutions' users. "The regular updates and the communication around them have been really good," said Myers. "I like the fact that BD is committed to evolving the software. They are constantly adding little benefits that just make it better and better." He said having a dedicated BD HealthSight™ Insight Consultant who works with each of their hospitals has helped them learn about new functionality as it becomes available and identify opportunities to optimize workflow.



"We've had a really strong relationship with BD for a long time," said Tracy Foy. "I recommend that others who are looking at different diversion management solutions look at the value involved with the analytics infrastructure that BD has built across their product suites so you can leverage that integration for advanced analytics."

Tracy Foy
Vice President of Clinical Systems
Encompass Health

Conclusion

Myers said that diversion detection and prevention is a huge part of Encompass Health's connected medication management strategy. Having access to the kind of information BD HealthSight™ Diversion Management provides is invaluable to understanding where gaps may be, so a plan can be created and executed to address them.



"I think of BD HealthSight™ Diversion Management as sort of an air traffic control system that helps you understand the health of your overall controlled substance medication management process," he said. "It has enabled us to improve our controlled substance monitoring so we can better deal with risks surrounding diversion and diverters – and, most importantly, make sure our patients are getting the medication."

Shawn Myers
Vice President of Pharmacy and Ancillary Clinical Services
Encompass Health

Manufactured by: CareFusion 303, Inc. a wholly-owned subsidiary of Becton, Dickinson and Company (BD).
10020 Pacific Mesa Blvd. San Diego, CA 92121, U.S.

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