BD MedMined™ Case Study

Lane Regional Medical Center Increases Efficiencies for Infection Prevention Staff

BD MedMined™ Surveillance Advisor helps Infection Preventionists focus time on better clinical outcomes.

This evaluation focused on the time comparisons of manual over automated processes for classifying and submitting data to the National Healthcare Safety Network (NHSN) resulting in a time savings of nearly four hours each month.

"Implementing BD MedMined™ Surveillance Advisor allows me to get back to what I love to do-- making a positive impact toward the reduction of Hospital Associated Infections (HAIs)."

Dana Bellefontaine, MT (ASCP), CLSG, CIC

Infection Prevention and Employee Health

Lane Regional Medical Center

Zachary, Louisiana

*Results experienced by Lane Regional Medical Center facilities reflect infection prevention surveillance processes in combination with BD MedMined™ Surveillance Advisor technologies.

About Lane Regional Medical Center
Lane Summary

Lane Regional Medical Center values community and takes pride in the role they play as caregivers. Lane serves as the primary healthcare resource for more than 200,000 community and surrounding residents to Zachary, Louisiana. Established in 1960, Lane is a state-of-the-art, 129-bed regional healthcare system that is continually expanding and adding new technologies, programs and services. With more than 850 dedicated team members, Lane Regional is the largest employer within the city of Zachary. The hospital continues to grow and invest in the community by recruiting new physicians and providing access to the very best healthcare services, technologies, and programs available in the region.

Summary

BD MedMined™ Surveillance Advisor can help infection preventionists optimize workflow so that they spend less time with manual data collation needed for surveillance activities, and more time on the floor collaborating with their peers and advocating for patient care to lower Healthcare Associated Infections (HAIs.)

About this Study

In August of 2017, BD MedMined partnered with Lane Regional Medical Center and a member of their infection prevention team, Dana Bellefontaine, to conduct a study to measure time savings before and after BD MedMined Surveillance Advisor was implemented. As part of Dana's role as an infection preventionist, she is responsible for identifying and classifying all potential HAIs and preparing and submitting

NHSN reports to the Center for Disease Control and Prevention (CDC). We measured and tracked Dana's time spent performing these manual processes before BD MedMined was implemented, and compared these same processes using BD MedMined Surveillance Advisor tools post implementation. The purpose was to demonstrate time savings using BD MedMined Surveillance Advisor.

Manual Process Management

Lane Regional Medical Center tracked the time spent on select core daily surveillance activities, as well as the time it took to prepare and submit reports for HAIs to the CDC's NHSN before and after the implementation of BD MedMined Surveillance Advisor. There were two key areas of the infection preventionist's role that were measured to determine if automated surveillance and reporting tools did indeed create greater efficiencies:

1. Reviewing daily "all isolate report" and segmenting ones for further investigation and follow-up

2. Submitting required infections to NHSN monthly

Prior to implementing BD MedMined, these areas were manually aggregated and reported. The tables below indicate the calculations made to compare pre and post implementation of electronic surveillance to support infection prevention initiatives.

Method

HAI Classification Measurement Comparisons for Manual vs. Automated Processes:

The first area measured weekly over one month included the time needed to make HAI classifications from manual data processes. On average, 52 minutes were spent each week to identify HAIs

with manual processes. Post BD MedMined implementation, the infection preventionist only spent 29 minutes identifying HAIs from automated data processes - saving 23 minutes per week for a total average of 92 minutes savings each month in the classification of HAIs with measurements over the course of one month taken weekly. This indicates a time savings of 44.2% for HAI classification (Please see table 1).

"Before implementing BD MedMined, I spent more than a day drowning in administrative, manual processes for classifying HAIs and preparing and submitting reports to the NHSN each month. Now that our surveillance and reporting initiatives are automated, I spend half that time on reporting, allowing me to spend more time on the floor with my peers to make a postitive impact on patient care."

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The other area measured included the time needed to prepare and submit required reporting to the NHSN. When using manual methods to submit to NHSN, the time spent on average was three hours per month for both HAI and SSI submissions. Post implementation, the same work took less than one hour each month. These averages are from measurements taken across three months and provided a 72.8% time savings (See Table 2).

Results

When combining the savings from HAI identification and classification along with the preparation and submission of required reporting for NHSN, the infection preventionist can save an average of 229 minutes (3.81 hours) for an average time savings of 58.5% per month by utilizing electronic surveillance over manual processes. That is more than an entire week per year that can be put toward implementing infection prevention best practices and collaborating with peers.

Table 1: Identification and Classification for Manual vs. Autoamted Processes

HAI Classification	Manual Processes Measured	BD MedMined Measured	Total Time Saved Each Month
Weekly Average Measurements Over One (1) Month	Approximately 52 Minutes Weekly Average	Approximately 29 Minutes Weekly Average	23 Minutes Daily per Week on Average Saved 92 Minutes Monthly = 44.2%

Table 2: Preparing and Submission of NHSN Reports

NHSN Report Prep and Submission	Manual Processes Measured	BD MedMined Measured	Total Time Saved Each Month
3 Months	Approximately 188 Minutes Monthly Average	Approximately 51 Minutes Monthly Average	Approximately 137 Minutes per Month = 72.81%

Conclusion

BD MedMined Surveillance Advisor can help infection preventionists create greater efficiencies. In this instance, we concentrated on reducing time spent gathering and identifying HAIs, as well as required reporting time on manual data reviews and submissions to NHSN. Lane Regional's infection preventionist has saved more than 50% of her time dedicated to HAI classification and NHSN reporting.