Case Study:

How Bethesda Reduced their UTI's by 50% Using a Proactive Infection Management Software

Bethesda

Peerlytics
INFECTION MANAGEMENT
& ABX STEWARDSHIP

leadingage.org/cast

Categories:

◆ Reduce the Number
of Infections

◆ Increased Quality
of Life

◆ Increased Reporting
Capabilities

◆ Staff Efficiencies

About the Organization

Organization Name:
Bethesda

Main Contributor:
Marissa Croatt, Infection
Preventionist, RN

Organization Type:
Long-term Care Rehab Facilities,
Skilled Nursing Facilities,
Memory Care

Organization Description:
Bethesda is a long-term care
skilled facility with 246 beds,
and assisted living, independent
living, and homecare/hospice
with adult day in Willmar, MN.

Project Description

Staying ahead of CMS RoP phase III, Bethesda began implementing a robust
infection-tracking software system. The goal of implementation was to reduce
infections and improve antibiotic stewardship while freeing time for the designated
infection preventionist to engage in education, audits, and activities that would
reduce healthcare associated infections (HAIs). Full software implementation would
provide data to improve QAPI and quality improvement projects related to infection
control and prevention.

Infection Control Modality

Health Screening, Contract Tracing, Infection Prevention, and Control
Software Solutions

System Embodiment

Desktop, web-based software solution

Business Model

Standard of Care

Implementation Approach

The Peerlytics Infection Management & ABX Stewardship software, formerly
abxtracker, brought a fully complaint regulatory solution that saved time in the
mandatory tracking and trending of infections and antibiotics. The alternative to
proactively identifying infection trends and managing outbreaks through efficient
means was using spreadsheets and relying on electronic health record data, which
is inefficient.

The advanced evidence-based clinical tools in the Peerlytics Infection Management & ABX Stewardship software include:

◆ McGeer Criteria to identify if the resident's symptoms align with the need for medication.

◆ Resident- and infection-specific Situation-Background-Assessment-Recommendation (SBARs) to standardize communication to the doctors.

◆ Prompted and built-in antibiotic timeouts to provide the doctors a status update after a medication is prescribed.

◆ User-friendly dashboard to see current infections in the building.

◆ Patient list to see patient-specific infection history and potential bacterial colonization.

◆ Watch and wait for residents on precautions or pending labs.

◆ Electronic mapping of infections on the community specific map.

All of the above provide an opportunity to make positive impacts in resident care. The Peerlytics dashboard is extremely user-friendly. After the initial training, along with instructions from the training videos that are available 24/7, "I was comfortable and familiar with the system and had built it into my infection tracking routine within the week," Croatt notes.

Understanding that every community has a different clinical workflow and EMR system, Bethesda found that having the infection preventionist manage the data was most beneficial. The infection preventionist then has a close pulse on infectious activity and can manage outbreaks as well as facilitate best practices. Quarterly QAPI meetings and every-other-week nursing meetings are a great opportunity for interdisciplinary collaboration. Without Peerlytics Infection Management & ABX Stewardship software, tracking and trending infections with reports or data was extremely time- consuming and challenging. Now, with software, working collaboratively to find solutions to infections and antibiotic trends is easy. In addition, documentation is easily reproducible within the software and there are no longer boxes of paper documentation.

Outcomes

Bethesda has seen several benefits of implementing Peerlytics Infection Management & ABX Stewardship platform.

Reducing infections has been a result of consistent collaboration with the Bethesda Medical Director for advocacy on reducing inappropriate medications. During December 2022, there was a 50% reduction in the number of UTIs, saving nearly $700 in nursing time and approximately $400 in medications because of the diligence in tracking infections, illness symptoms, and outcomes with an efficient software system and workflow. Peerlytics Infection Management & ABX Stewardship makes it easy to track prescribers who are not following evidence-based criteria or not obtaining cultures. As a result, there has now been a significant decrease in medications being prescribed. Through the built-in antibiotic time-outs, "we have doctors changing antibiotic courses from 10 days to three days, which can significantly reduce the risk of adverse medication events and side effects in the residents, which prevent unnecessary hospitalizations." Because of this, there is a direct relation to reducing health care costs beyond what was initially expected with the initiation and adoption of this project and software.

Increased quality of life/outcomes has been documented by the decrease in unnecessary antibiotics and the reduction of antibiotic days of therapy. Bethesda has been extremely pleased to see the improvements in quality of life through the reduction of UTIs since implementing Peerlytics Infection Management & ABX Stewardship software. "Having an infection-specific solution allows me to see patient-specific trends and refer to specialty providers for closer examination," notes Croatt. "There has never been a great way in a spreadsheet or in an EHR to see these trends, so having the Peerlytics software has been so efficient and is improving our residents' outcomes."

The increased reporting capabilities have fostered an interdisciplinary collaboration at Bethesda. With the ability to quickly produce a real-time infection line list, Infection Preventionist Croatt says, "I give my line list report to my dietary manager. She uses it to see

who has an active infection and can better support their dietary needs through nutrition and/or hydration. Having a report to give her in a few clicks makes this a great collaborative approach to improving our patient outcomes." In addition, using the Peerlytics Infection Management & ABX Stewardship software has allowed convenient and efficient collaboration with the MDS coordinator. "It has significantly reduced the amount of time on reporting and documenting," says Croatt. There is no longer a need for boxes and binders of paper; everything is reproducible for survey, providers, QAPI and interdisciplinary collaboration.

Staff efficiencies have become an added benefit as the infection preventionist has freed up time from tracking and trending infections to support direct infection prevention and control efforts within the community through audits and education. Streamlined reports allow interdisciplinary collaboration easier than ever before with significant clinical outcomes improvements as previously noted.

Lessons Learned/Advice to Share with Others

Tracking and trending infections can be done in multiple ways. However, tracking infections and antimicrobials in real time has made a meaningful impact to Bethesda. Through the use of Peerlytics Infection Management & ABX Stewardship, collaborative and impactful ways to improve resident care have surfaced.

Advice to share with others is to find utilization of reports, and work collaboratively with the medical director to find solutions to infection trends in the community. "Don't be worried about sharing trends and information with the DON, MDS, and caregivers, as data can paint a powerful picture and help find solutions to gaps." It has been proven helpful in sharing the Peerlytics Prescribing Providers' Report and tracking infection criteria to talk with providers 1:1 to share trends in antibiotic use and misuse. It is not too late to find ways to bring infection surveillance into real time and once you do, you will see more benefits than you could have imagined.