



Whitepaper

# SMARTER INFECTION SURVEILLANCE

## HOW CHROMATIC HEALTH'S HAI TRACKER IS EASING THE BURDEN OF INFECTION TRACKING

Long-term care (LTC) facilities are facing historic challenges: rising infection incidence, increasing regulatory pressure, and significant resource constraints. And based on current data and projected population trends, these challenges will likely only intensify, which leads to a critical, inevitable question:

**How can LTC facilities deliver safe, high-quality care to some of the country's most vulnerable patients while remaining nimble in an ever-changing healthcare landscape?**

This brief explores these challenges and shares how LTC facilities can more easily overcome them with Chromatic Health's **HAI Tracker**. A premier surveillance package, HAI Tracker is designed to help LTC facilities efficiently deliver safe, high-quality care.

### BARRIERS TO BETTER OUTCOMES AND BALANCED WORKFLOWS

#### Cascading Effects of Rising Infection Incidence

Clinical research has shown that 2.8 million infections occur each year among LTC patients, leading to approximately 150,000 hospitalizations, \$700 million in additional health care costs, and 380,000 deaths.<sup>1</sup> When averaged across the approximate 15,000 nursing homes in the United States, the data's urgency resonates even more: 10 hospitalizations, \$46,000 in additional costs, and 25 deaths per facility.

And because LTC settings have had little support with infection surveillance and reporting, over-treatment has occurred. Approximately 70% of LTC facility residents are on at least one systemic antibiotic during a one-year period—however, up to 75% of these administrations may be clinically unnecessary<sup>2</sup>. Antibiotic overuse poses significant health risks to residents, including diarrheal infections, most notably from *Clostridioides difficile* (*C. diff*).

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#### Extensive CMS Regulations

Since 2016, LTC facilities have had to frequently modify workflows and allocate new resources to meet growing federal regulations. In November 2016, the Centers for Medicare & Medicaid Services (CMS) instituted its “Mega Rule,” a dramatic expansion of its reporting requirements for LTC facilities. In short, the rule mandates that facilities create and operate an infection prevention and control (IPC) program, as well as an antibiotic stewardship program.

<sup>1</sup> National Action Plan to Prevent Health-Care Associated Infections: Road Map to Elimination. “Chapter 8: Long-term Care Facilities.” Health.gov: <https://health.gov/hcq/pdfs/hai-action-plan-ltcf.pdf>

<sup>2</sup> Core Elements of Antibiotic Stewardship for Nursing Homes. <https://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html>

For the IPC program, LTC settings must have a comprehensive system for preventing, identifying, reporting, investigating, and controlling infections and communicable diseases for residents and care teams<sup>3</sup>. Even more, facilities must provide a surveillance system to identify possible communicable diseases or infections before they spread. Facilities must have at least a part-time team member with training in infection prevention and control who is responsible for the program<sup>4</sup>.

For the antibiotic stewardship program, which ties to reimbursement, CMS requires that facilities must have in place a reliable, scalable system to monitor patients' use of antibiotics.

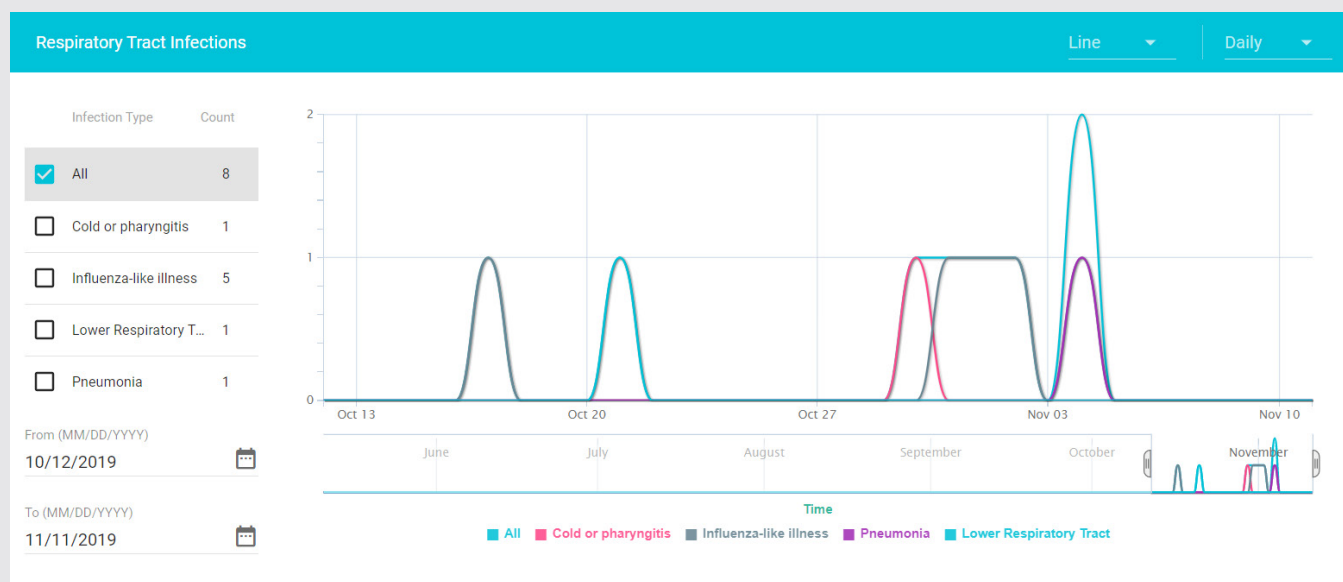
### Ambiguity and Redundancy from Complex Criteria

Surveillance criteria to track infections—the McGreer criteria and the CDC's National Healthcare Safety Network (NHSN) surveillance definitions—have complicated facilities' tracking efforts for years.

Because these guidelines are difficult to understand, LTC facility team members often feel unconfident when applying them, which leads to inconsistent and inaccurate reporting. Second, until now, an absence of an intelligent infection-reporting digital solution has forced teams to use disparate files, such as spreadsheets or printed forms, to track infections and antibiotic use, which has complicated their ability to find, edit, and review critical historic data to note trends.

### Hiring and Development Costs of a Full-time Preventionist

The costs of hiring a full-time infection preventionist to only manage ICP and antibiotic stewardship programs are too high for most LTC facilities. Consequently, LTC administration often assigns numerous responsibilities, such as staff education, occupational health, and professional development, to the role, which fragments their ability to fully attend to the ICP and antibiotic stewardship programs.



<sup>3</sup> Code of Federal Regulations. Centers for Medicare & Medicaid Services. Section 483.80: [https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap\\_pp\\_guidelines\\_ltc.pdf](https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_pp_guidelines_ltc.pdf)  
<sup>4</sup> Federal Register / Vol. 81, No. 192 / Tuesday, October 4, 2016 / Rules and Regulations. <https://www.govinfo.gov/content/pkg/FR-2016-10-04/pdf/2016-23503.pdf#page=181>

Additionally, because the role of an infection preventionist is relatively new, no gold-standard background for it exists—most preventionists arrive from a variety of backgrounds and levels of experience. As a result, the learning curve is steep, long, and costly—teams must invest heavily in their infection preventionist’s development to learn the latest surveillance criteria, track data manually, and summarize findings for quality, clinical, and administrative leadership within the organization.

## HOW CHROMATIC HEALTH’S HAI TRACKER ADDRESSES THE BARRIERS

### Frictionless Infection Prevention and Control Workflows

HAI Tracker provides LTC facilities a systematic, intelligent platform to consistently identify infections. Rather than memorize and inconsistently implement confusing surveillance criteria, teams using HAI Tracker receive responsive feedback during surveillance activities so they can correctly apply the criteria the first time. And with a singular digital surveillance platform, teams avoid the inefficiency of “double documentation.”

### Advanced Antibiotic Stewardship

LTC facility teams can track data on antimicrobial use and prescribing practices from a single source of truth. From the application, teams can quickly

“HAI Tracker’s intuitive reporting interface empowers teams to easily explore infection incidence and prevalence—with minimal training.”

produce real-time reports on antibiotic prescribing, use, and outcomes, or drill down into actionable data reports, new antibiotic starts (including by prescribing clinician), antibiotic days of therapy, and infection outcomes, including facility acquisition of C.diff. Facilities using EMRs and pharmacy databases can benefit even more, as HAI Tracker integrates with these technologies.

### Intuitive, Customizable Investigative Capabilities

HAI Tracker’s intuitive reporting interface empowers teams to easily explore infection incidence and permanence—with minimal training. LTC facility teams can investigate outbreaks, identify recurrent patient infections, and support environmental cleaning practices with location-specific infection data. Workloads to fulfill any facility or regulatory agency needs ease, too, with teams’ ability to customize reports.

## About Chromatic Health

Chromatic Health was founded on the belief that safety and quality should be at the forefront in all care delivery settings. Our solutions increase the consistency, accuracy, and efficiency of programs designed to improve outcomes around infection prevention and control, as well as antimicrobial stewardship. As a result, we’re fulfilling CMS’s call to support providers’ shift from fee-for-service to value-based care.

To learn more, contact [info@chromatichealth.com](mailto:info@chromatichealth.com) or call (312) 281-7170.

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