Surgical Site Infection (SSI) Prevention

Helps teams recognize, treat, report, and prevent surgical-site infections

Type: Analytics Accelerator  ID: 1497  Revised: 2019-10-15

The SSI Prevention analytics accelerator provides data and visualizations to help users review outcomes and identify trends related to SSI, analyze internal processes related to SSI prevention, and intervene to improve care and care processes. It can be deployed as a standalone application or combined with other accelerators focused on specific conditions or procedures—for example, CABG, Colorectal Surgery, or Joint Replacement: Hip and Knee—to enrich understanding of the whole patient and ensure best practice care across the continuum.

Note: Like all analytics accelerators, this application is implemented in a custom way. Organizations identify their own areas of focus—and the appearance and functionality of the accelerator may differ from what is presented here.

Intended users
- Chief Medical Officer
- Chief of Surgery
- Hospital infection prevention teams
- Clinical directors, service-line leadership and teams
- Clinical educators
- Unit-level leadership and teams
- Quality improvement teams

Potential data sources
- EMR - Clinical
- Billing
- Finance/Costing
- Patient satisfaction
- Other clinical: surgery scheduling and surgery case data sources, infection prevention surveillance system, laboratory

The Surgical Site Infection (SSI) Prevention analytics accelerator helps organizations see, analyze, and reduce cases of SSI—and deliver better outcomes for surgical patients.
The problem
Organizations typically choose to focus on SSI prevention for these reasons:

- **SSIs are common—and costly.** The CDC continues to list SSI among the most common hospital-acquired infections. And despite advances in infection control practices, it remains a substantial driver of mortality, morbidity, prolonged hospitalization, and excess cost.
- **Providers need feedback to help reduce SSI risk.** To reduce SSIs, the CDC and quality improvement associations promote surveillance of SSI with feedback of appropriate data to providers caring for patients before, during, and after surgery.

Our approach
The **SSI Prevention** analytics accelerator supports a disciplined, data-driven approach to efforts aimed at lowering SSI rates and thereby improving patient outcomes and reducing hospital length of stay, readmissions, and costs. Typical implementations focus on adherence to perioperative best practices for SSI prevention and visibility into variation of SSI case counts across locations, patient cohorts, procedures, and providers.

Benefits and features

- **Access an at-a-glance, near real-time view of clinical outcomes and the care practices that drive them.** The Performance dashboard visualizes outcome metrics (e.g., SSI rate and count) in relation to adherence to infection-control practices such as pre-op antimicrobials, glucose management, CHG skin prep, thermoregulation, etc.
- **Rapidly identify, analyze, and improve.** The SSI dashboard allows you to compare performance across different patient groups by surgeon, OR room, procedure, etc., further increasing your ability to uncover the “why” behind SSIs and the “where” to focus improvement efforts.

Use cases

- **A hospital executive** reviews the SSI report from the Infection Prevention Committee and wants to know what is being done to decrease SSI rates to avoid patient harm and payment penalties. The Committee is able to use the accelerator to show the downward trend in SSI rate across all patient groups and associate it with recent education efforts to improve infection prevention practices.
- **The surgical care process improvement team** wants to measure the impact of a new colorectal surgery bundle on SSI rates. The team uses the accelerator to look at compliance with the new process and the trend in SSI rates since implementation of the new process.
- **An infection prevention team** is accountable for reducing the system’s SSI rate. The team uses the accelerator to investigate preoperative care processes and develop a hypothesis, based on actual compliance data. Within a short time, they have data to share with the medical director for GI surgery demonstrating the trend in SSI and supporting data on SSI prevention bundles.

Key measures

- SSI Rate
- Readmission
- Cost-per-case
- Length of stay (LOS)
- Patient satisfaction
- Compliance with ERAS best practices

Success stories

For examples of how customers have used Health Catalyst products and services to improve outcomes, visit [https://www.healthcatalyst.com/knowledge-center/success-stories/](https://www.healthcatalyst.com/knowledge-center/success-stories/)

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