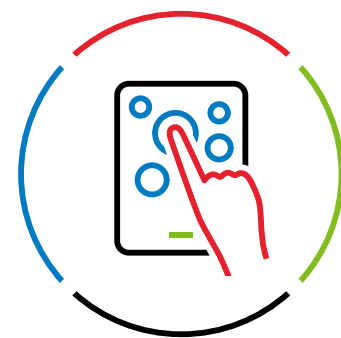




Achieving organizational impact with UpToDate Enterprise Edition



Using advanced analytics, health system leaders are discovering ways clinical data can help fill administrative gaps and shape strategic plans



The care delivery landscape is changing rapidly. Modern health systems have to keep pace, not only with technological innovations, but also with the growing complexities of their own organizations. As health systems', care teams', and patients' needs evolve, achieving goals for both care quality and organizational efficiency become harder to balance.

In the past few years, healthcare systems have had to navigate systemic, industry-wide challenges, such as [worker shortages and financial strain](#)¹, opportunities and challenges from [new and evolving technology](#)², and the growing complexity of [regulations and working with payers](#)³. But many are discovering there are opportunities to meaningfully address quality improvements and shape education programming within their organizations. They're doing it by using data and insight into their own clinicians' behavior.

Creating a new experience to unlock point-of-care insight

To better support healthcare leaders in that mission, Wolters Kluwer created UpToDate® Enterprise Edition. This latest UpToDate solution supports unification of care teams and administrators with a focus on workflow innovation and patient-centered care.

"I have been excited to work with Wolters Kluwer as they develop their UpToDate Enterprise analytics and dashboards. Using these tools, clinical and informatics leaders can appreciate the critical role UpToDate is playing in the daily practice of our caregivers."

**Dr. Scott Smitherman,
Chief Medical Information Officer,
Providence Clinical Network**



Early adopters of UpToDate Enterprise Edition have explored opportunities to reduce risk and enhance clinical decision support by employing insights gained from its advanced analytics portal. Use cases have included:

- ✓ Supporting quality and regulatory compliance
- ✓ Identifying educational opportunities
- ✓ Reducing surgical site infections (SSIs)
- ✓ Reducing risk and enhancing clinician support - MATE Act compliance

Support quality and regulatory compliance



Organization Type:

Hospitals and health systems



Key Roles Involved:

Chief Medical Officer (CMO),
Chief Medical Information Officer (CMIO),
Chief Quality Officer/VP of Quality, Risk Management

Challenge:

Healthcare organizations need to ensure that care practices continually align with the Centers for Medicare & Medicaid Services (CMS) standards. UpToDate not only provides evidence-based clinical guidelines but also aids administrators responsible for managing accreditation and reporting.

To ensure compliance and patient safety, CMS works with healthcare organizations to conduct a root cause analysis (RCA). CMS regulatory actions typically involve:


- **Identification:** CMS identifies an issue or event triggering the RCA, often due to regulatory non-compliance or adverse patient outcomes.
- **Immediate Jeopardy:** CMS evaluates whether issue poses immediate risks to patient safety, requiring urgent action.
- **RCA Requirement:** CMS mandates the healthcare provider to conduct an RCA, identifying the root causes and contributing factors.
- **Review:** CMS reviews the RCA findings to ensure they address the issues and identify effective corrective actions.
- **Corrective Action Plan (CAP):** CMS may require a CAP based on RCA findings, detailing steps to prevent recurrence.
- **Monitoring:** CMS monitors the implementation of the CAP, ensuring compliance, with potential penalties for non-compliance.
- **Documentation:** CMS requires detailed documentation of the RCA process, which may be reviewed in future audits or investigations.

Actions and impact:

This customer used the clinical decision support information in UpToDate to successfully appeal a CMS finding, **saving the organization over \$100,000** in civil regulatory penalties. By using UpToDate usage data, they were able to demonstrate that their practices were in line with regulatory standards, resulting in a favorable outcome in one particular RCA.

Additionally, using the aggregate data in the analytics portal, the customer was able to support RCA investigations, recognize additional concerning patterns, and demonstrate that any CAP steps were being followed. This highlights the portal's potential as a tool for defending the organization's practices in regulatory reviews, audits, or other quality assurance processes. The team recognized the portal's value in supporting documentation and evidence-based arguments during peer reviews and regulatory inspections.

Feature of UpToDate Enterprise Edition used:

 Analytics Dashboard.

This proactive approach not only enhanced regulatory compliance but also contributed to better overall healthcare quality. By leveraging UpToDate and its analytics capabilities, the organization ensured compliance with CMS standards, improved patient safety, and saved over \$100,000 in civil regulatory penalties.

Identify educational opportunities



Organization Type:

Hospital systems with Graduate Medical Education (GME) programs



Key Roles Involved:

Chief Medical Officer (CMO),
Chief Medical Information Officer (CMIO),
GME leadership

Challenge:

A GME program coordinator manages the daily operations of residency and fellowship programs, ensuring compliance with accreditation standards. They use data to track the progress of residents and fellows, monitor program compliance, and support continuous quality improvement. This data-driven approach helps in learning and reinforcing best practice decisions and maintaining the program's accreditation.

The GME coordinator and CMIO of a major multi-state health system collaborated to review UpToDate utilization patterns to identify if there were learning gaps in understanding among their residents.

Actions and impact:

The team used a three-step approach to uncover insights and address the identified opportunities:

- **Isolate a specific service line:** To understand whether the utilization data represents an area of educational opportunity, it was suggested to isolate a specific service line. In this case, they focused on internal medicine, their highest volume service line.
- **Utilization data analysis:** The utilization data showed that the topic “Initial assessment and management of acute stroke” had significantly higher usage among medical students and residents. This topic aligned with a diagnostic-related group (DRG) with high readmission rates and potential for secondary stroke.
- **Comparison and curriculum development:** The findings led to a comparison between the utilization data of the internal medicine residents and medical students to the patient DRG data within their assigned clinical cohort. Upon uncovering a meaningful variance, findings would lead to additional focused curricula on primary stroke identification.

Feature of UpToDate Enterprise Edition used:

- ➔ Analytics Dashboard.

These insights and actions help ensure that residency and fellowship programs are aligned with best practices and accreditation standards, ultimately improving patient care and educational outcomes.

Reduce surgical site infections (SSIs)



Organization Type:

Health systems, hospitals, acute care



Key Roles Involved:

Chief Medical Officer (CMO),
Chief Medical Information Officer (CMIO),
Chief Quality Officer (CQO)

Challenge:

Surgical Site Infections (SSIs) are a significant problem because they can lead to serious complications, including prolonged hospital stays, readmissions, increased healthcare costs, delayed recovery, and even life-threatening conditions like sepsis. SSIs can also result in additional surgeries, impaired wound healing, and long-term disability, ultimately reducing the overall quality of patient care and outcomes. Preventing SSIs is critical to ensuring patient safety and improving surgical success rates.

Specific medication protocols, including antibiotics, antiseptics, and glycemic control medications, are in place at healthcare organizations to reduce the likelihood of SSIs. For organizations experiencing a high rate of SSIs, it is imperative to understand whether clinicians are following these protocols.


To determine an organization's risk for increased SSIs, UpToDate usage data can be used to identify less frequently accessed topics and highlight areas where additional resources or training might be necessary. For instance, if infection control measures, SSI prevention, or treatment topics are not being accessed as often as expected based on the organization's surgical occurrence rates, this could indicate a gap to be addressed.

Actions and impact:

By looking at data from a different perspective, one organization was able to uncover and address likely gaps in knowledge and protocol adherence.

- **Focus on least-used topics:** Rather than focusing on the top-used UpToDate topics, this organization focused on the topics used the least and compared them against the key medications needed in SSI prevention protocols.
- **Collaboration with UpToDate customer success team:** Upon uncovering discrepancies, the organization collaborated with the UpToDate customer success team to ensure key clinical users and specialties were aware of and using the analytics resources available to them through the enterprise portal. Growing usage in particular drug topics indicated a successful awareness campaign.

Feature of UpToDate Enterprise Edition used:

 Analytics Dashboard.

By leveraging UpToDate analytics data, the organization was able to identify and address gaps in knowledge and protocol adherence, ultimately reducing the incidence of SSIs and improving patient outcomes. This proactive approach not only enhanced patient safety but also contributed to better surgical success rates and overall healthcare quality.

Reduce risk and enhance clinician support - MATE Act compliance



Organization Type:

Hospitals, health systems



Key Roles Involved:

Chief Executive Officer (CEO),
Chief Medical Information Officer (CMIO),
Credentialing teams

Challenge:

Medication Access and Training Expansion (MATE) Act compliance is essential for maintaining regulatory standards, enhancing patient safety, managing risks, and ensuring the overall quality of care. It supports operational efficiency and helps build trust with patients and stakeholders.


The MATE Act requires all DEA-registered practitioners to complete 8 hours of training on the treatment and management of patients with opioid and other substance use disorders. UpToDate offers a selection of eligible topics that allows providers to choose those most relevant to their practice, accruing the required Continuing Medical Education (CME) credit while using their time efficiently and increasing satisfaction. Adhering to the MATE Act aligns with best practices in medication management and contributes to the overall quality of care provided by the hospital. It supports a systematic approach to managing high-risk medications and improving patient outcomes.

Actions and impact:

The health system implemented a standardized approach to remind users of the MATE-eligible CME topics available in UpToDate and the ease of fulfilling their requirements in this convenient way. The analytics report helped them target their recipients and monitor results.

- **Customized CME accrual:** Customers can work with their UpToDate Customer Success team to remind users that they can use UpToDate to accrue and submit CME for MATE-eligible topics, rather than taking generalized training not specific to a clinician's practice.
- **Monitoring educational efforts:** Customers can monitor the response to educational efforts promoting UpToDate as a source for mandatory CME.

Feature of UpToDate Enterprise Edition used:

 Analytics Dashboard.

By leveraging UpToDate and its analytics capabilities, the health system ensured compliance with the MATE Act, enhanced clinician support, and improved patient outcomes. This proactive approach not only maintained regulatory standards but also increased clinician satisfaction by allowing them to focus on relevant, practice-specific content.

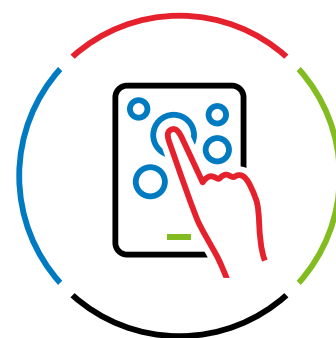
“When I first heard about the DEA’s new requirement (MATE Act), I looked at a variety of courses to meet it. They all had blocks of time spent on content that wasn’t relevant to my patients or how I practice. I was excited to learn that I could choose topics from UpToDate that supported my patient population while helping me earn the needed CME credits. It turned what felt like a burden into a win.”



Expanding insights to drive future impact

As more health systems explore more ways to leverage the power of clinical decision support (CDS) data within their organizations, Amanda Heidemann, M.D., a Clinician Advisor to Wolters Kluwer Health, says she is excited about the possibilities that open with a self-service tool like the UpToDate analytics portal “allowing a broad swath of people in the organization to get into analytics and explore. I think people are assuming it has to be a single quality person. But it could be a service line director. Let teams get in there and see what they can discover and impact with a new functionality, and then challenge us to make it better.”

UpToDate Enterprise Edition analytics capabilities are expanding in 2025 to allow for more in-depth insights on utilization and potential strategic improvements:



National benchmarking: The tool will provide national average utilization data for health systems to compare against their internal data “to make your data more actionable and give you context,” explains Jim Albrittain, Head of Product Marketing for UpToDate.



Summary insights landing page: Albrittain describes this new feature as “an executive opportunity dashboard to proactively elevate potential variation or opportunities” within a particular organization’s utilization data. As part of this landing page, there will also be an aggregation of topic utilization by chronic condition and disease state to help reduce search time in cases where a single disease may comprise dozens of UpToDate articles, or a single drug class may contain too many individual drugs to search one-by-one.



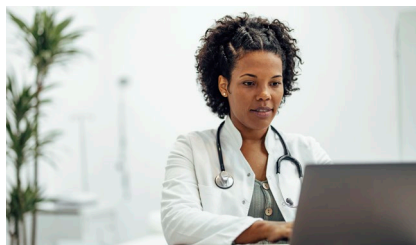
Data exporting: While simple on its face, the ability to export tables and dashboards from the analytics portal will open up broader data portability, enabling health systems to incorporate underlying utilization data from their CDS analytics projects into their greater data warehouse and wider analytics programs.

“What we’re providing with the analytics dashboard is insight into clinical decision-making,” Albrittain says. “Wherever your healthcare organization is going, whatever kind of information you’re looking for, clinical decision-making is what happens first. All of the outcomes that all of these health systems track – quality, operations, utilization – it all starts with clinical decision-making. Looking at this insight, not as utilization data, but as a leading indicator for the decisions that are going to impact downstream results is an important mindset and a new way to view and think about this data.”

Understanding clinical data is essential to the modern health system

After more than 30 years helping clinicians and health system leaders meet industry challenges through its evidence-based UpToDate clinical decision support solutions, it became clear to Wolters Kluwer that modern health systems needed to delve deeper into the critical role UpToDate plays in the daily practice of their clinicians.

With more than **2.4 million global clinical users** accessing its **over 12,800 topics** at a rate of **60 million content views per month**, UpToDate is constantly accruing a wealth of usage data that reveals a compelling story about clinician behavior, care variation, and educational gaps. When honed to the ecosystem of single health system, that data had potential to contribute substantially to organizational value.



References

1. 2024 health systems outlook: A host of challenges ahead” by Rupal Malani, MD, December 19, 2023, McKinsey & Company. <https://www.mckinsey.com/industries/healthcare/our-insights/2024-health-systems-outlook-a-host-of-challenges-ahead>
2. 12 Major Challenges Facing the Healthcare Industry in 2024” by Lisa Schwarz, May 12, 2024, Netsuite.com. <https://www.netsuite.com/portal/resource/articles/erp/healthcare-industry-challenges.shtml>
3. 12 healthcare trends and issues we are following for 2024” by Scott Becker and Molly Gamble, January 2, 2024, Becker’s Hospital Review. <https://www.beckershospitalreview.com/strategy/12-healthcare-trends-and-issues-we-are-following-for-2024>