# Healthcare Has a Knowledge Problem
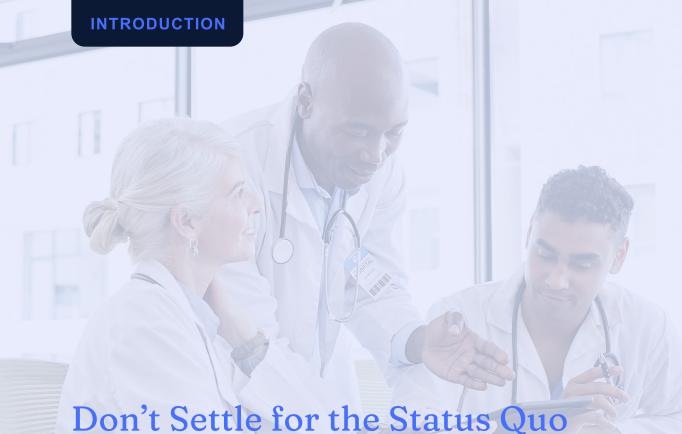
Poor knowledge management leads to waste and subpar clinical outcomes. Department leaders need a new approach.

# Don't Settle for the Status Quo

To provide effective clinical treatment, care teams need access to knowledge. Test results and other diagnostic information are just one piece of the puzzle: clinicians also need to be able to quickly identify and access proven best practices and evidence-based protocols to ensure effective and consistent treatment for their patients.

Healthcare leaders already invest valuable time and energy developing, documenting, and maintaining best practices for their teams. But to organize and communicate these vital knowledge assets, departments typically still rely on hard-to-read PDFs, convoluted online filing systems, or even physical documents stuffed into three-ring binders.

That means vital information often goes unread, and knowledge gets stuck in silos instead of reliably activated at the point-of-care. In fact, research shows that on average, clinicians make decisions based on high-quality evidence and proven best practices 20% of the time. The rest of the time, they're effectively flying blind.

## THE RESULT: INEFFICIENCY, INCONSISTENCY, AND A LOWER QUALITY OF CARE.

Hospitals invest time and effort developing clinical best practices, but inefficient knowledge management makes those best practices hard to access or keep continuously updated, and leaves hospitals struggling to unlock meaningful improvements in clinical care. Key risks associated with inefficient knowledge management include:

### Inconsistent care

with patients currently receiving **less than 55%** of recommended test and treatments. About one-third of patients also receive inappropriate medications, accounting for as many as **17.3% of adverse outcomes.**

### Preventable medical errors

which are now the **third-largest cause of death** in the United States. Around 400,000 hospital patients experience preventable medical errors each year, costing healthcare systems up to **$45 billion** annually.

### Inefficiency

with wasteful healthcare spending costing **$935 billion per year** in the US alone. Of that, inefficient care—including delivery errors, failure to adhere to best practices, and failures of care coordination—drives **$345 billion** in waste.

### Legal liabilities

with lawyers routinely **requesting access** to departmental policies and procedures during malpractice lawsuits, and interrogating whether knowledge resources were properly communicated to and acted upon by clinicians.

At C8 Health, we believe healthcare organizations shouldn't have to settle for the status quo. We're making clinical knowledge-sharing and dissemination radically easier for both clinicians and their leadership—and giving healthcare organizations the ability to disseminate and utilize knowledge seamlessly when and where it's needed the most.

→ Read on to learn how your organization can level up knowledge management to support clinicians, unlock new efficiencies—and ensure consistently high quality of care for patients.

# Why is Implementing Best Practices So Hard?

It's no secret that standardizing clinical care around established clinical guidelines and evidence-based best practices drives real-world results.

By introducing a simple best-practices checklist, for instance, one US obstetrics department reduced overuse of cesarean deliveries by more than one-quarter in just seven weeks. Another department achieved a 10-fold decrease in opioid overprescription by setting clear and consistent policies at the departmental level.

But it isn't enough to simply develop clear best practices for clinical care. To ensure effective implementation, clinical knowledge must be easily accessible, easily maintained, and deeply integrated into clinicians' workflows—without overburdening either frontline care teams or hospital administrators.

### INFORMATION OVERLOAD

Another scientific paper is added to the medical literature every 26 seconds, so clinicians would need to read 5,000 articles per day to stay abreast of all new medical research. This means the exponentially growing volume of healthcare information doesn't automatically lead to a corresponding improvement in quality of care.

In fact, research shows that across a wide range of indicators—from cardiology readmission rates to hypertension management to life expectancy—the accumulation of knowledge (as gauged by PubMed citations) isn't driving improvements in patient outcomes. Meanwhile, almost 70% of clinicians feel they have too much information available to them, and almost 30% say they've missed test results or delayed patient care while trying to deal with the torrents of information to which they're now exposed.

### CASE COMPLEXITY

With both life expectancies and the prevalence of chronic health conditions increasing, physicians are seeing far more comorbidities. One recent study, for instance, found a 40% increase in patients with multimorbidities between 2003 and 2009.

This necessarily increases the complexity of individual cases, with doctors routinely having to manage multiple conditions, contraindications, drug interactions, and other challenges. In fact, doctors now have to sift through as many as 50,000 items of data when treating patients —even though only a few dozen of those data points are typically immediately pertinent to patient care.

**CLINICIAN BURNOUT**

Hospitalists currently spend between <u>one-quarter and one-third of their time</u> dealing with documentation—then use their time off to catch up on overdue paperwork. Perhaps unsurprisingly, research shows a <u>strong correlation</u> between burnout rates and the documentation burdens placed upon clinicians, with specialties that have more streamlined documentation practices seeing markedly lower burnout rates.

Healthcare's ongoing digital transformation also requires both physicians and nursing staff to use countless different tools and apps, in addition to their core EMR platform, as they go about their daily work. In fact, clinicians now spend almost one hour per day solely responding to electronic notifications. If knowledge platforms add to that pressure by creating additional demands on clinicians' time, or extra steps in their daily workflows, then the reality is that users won't embrace them, and important knowledge assets will go unseen and unused.
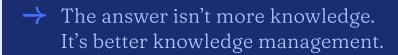
**POOR COORDINATION OF CARE**

During their first 24 hours after being admitted to the hospital, the typical patient interacts with <u>35 different healthcare and support professionals</u>. With so many touchpoints, often spanning multiple locations and hospital departments, ensuring adherence to best practices across the full care continuum—including multiple specialists, caregivers, technicians, administrators, and auxiliary staff—is no easy task.

Meanwhile, burnout is driving high turnover of physicians and nursing staff, along with staffing shortages that increasingly force hospitals to rely on temporary staffing. That trend only heightens the need for effective tools to rapidly onboard and train new arrivals, communicate departmental standards, and ensure consistent, high-quality care for patients.

## WHAT'S THE ANSWER?

Any effective knowledge management solution must help hospital leaders and clinicians to overcome these challenges. In a complex and fast-changing world, we urgently need tools that make it radically simpler and easier to access, use, and maintain clinical knowledge.

It isn't enough to put more and more information online and hope for the best. Instead, clinical resources must be integrated seamlessly into clinicians' existing workflows, with intelligent knowledge discovery and management to help clinicians effortlessly surface the exact information they need to provide consistent, high-quality care.

→ The answer isn't more knowledge. It's better knowledge management.

# A New Paradigm for Knowledge Management

When healthcare professionals are forced to root through physical files or shared folders to find knowledge resources, the process rapidly becomes burdensome and inefficient. Information winds up stuck in silos, and clinicians struggle to find the clinical insights they need.

## C8 HEALTH SOLVES THAT PROBLEM BY PUTTING THE KNOWLEDGE THAT CLINICIANS NEED IN THE PALM OF THEIR HAND.

First, C8's unique platform draws all relevant best practices, clinical research, and departmental policies—including materials uploaded directly to C8, and also knowledge drawn in via integrations with other tools and knowledge depositories—into a single unified source that can be effortlessly maintained and easily accessed.

Next, we use AI to make that knowledge seamlessly accessible, at any time, across all the different platforms and devices that clinicians rely on. Natural-language processing enables clinicians to ask questions in plain English and get instant responses derived from the institution's own approved best practices and up-to-date knowledge resources.

The result: streamlined access to trusted knowledge resources, more efficient and effective delivery of care, and rigorous coordination across the entire spectrum of care.

→ **Clinicians** get vetted, targeted, and actionable insights in the moment that they need them, via a web browser, smartphone, or any other device that suits their workflow.

→ **Operational leaders** get a unified knowledge engine that breaks down information silos to ensure coordinated care, with seamless updating and powerful analytics to ensure engagement, reduce waste, and improve patient outcomes.

Instead of juggling multiple systems to create, share, and access knowledge, hospital teams use a single dependable resource to get the exact information they need in the exact moment that it's needed. The result: no more guesswork, no more stress, and no more missed opportunities to deliver world-class care.

## HOW IT WORKS

Managing knowledge effectively requires effective coordination across multiple touchpoints—from creating and updating knowledge resources, to surfacing knowledge where and when it's needed. Here's how C8 Health enables that:

### 1.

#### STREAMLINED ONBOARDING

There's no need for departmental leaders to invest time or IT resources into launching or maintaining their knowledge infrastructure. Simply give the C8 Health team access to your existing knowledge resources, and we'll do the rest—digitizing and centralizing all your point-of-care guidance to create an integrated knowledge hub for your entire organization.

### 2.

#### SEAMLESS ACCESS

Teams can access knowledge within their EMR tools, institutional web portals, web browsers, or mobile devices, using natural-language queries to instantly surface relevant information. With AI-powered search and content formatting, physicians never have to dig around in online folders or scroll through hard-to-read PDFs to find the knowledge they need.

### 3.

#### INTELLIGENT TARGETING

The context-aware C8 hub learns how your teams work, and proactively surfaces information right when it's needed. If a surgical procedure is scheduled for tomorrow afternoon, for instance, C8 automatically provides each member of the surgical team with role-specific procedures and best practices —as well as details of other team members assigned to work with them in the OR.

### 4.

#### EFFECTIVE COORDINATION

The C8 Health platform coordinates guidance across multiple sites and care teams, ensuring consistency and end-to-end coordination of care, while accounting for operational differences between sites. With built-in newsfeeds and communication tools, and targeted notifications when guidance changes, C8 also integrates with existing communication channels, enabling smarter collaboration and knowledge-sharing across the organization.

### 5.

#### CONTINUOUS IMPROVEMENT

All knowledge contained in your C8 platform has an assigned review date, and C8 automatically flags duplicate materials and obsolete content—ensuring resources stay up-to-date, with rigorous local vetting and clear traceability to high-quality clinical evidence. Automated workflows also drive operational efficiencies, while powerful data-driven insights ensure that resources are accessed and used correctly across the organization.

## The bottom line

C8 Health makes clinicians' lives easier, not harder—and that means rapid adoption and high engagement with your clinical resources.

In fact, C8 sees **90% adoption within 6 months**. With 86% of usage coming directly at the point-of-care, that translates directly into more efficient care delivery and better clinical outcomes for patients.

At one large anesthesiology department, for instance, clinicians saved an average of 84 hours per person during their first year using C8 Health to manage their knowledge resources. That translated into total cost savings of over **$1.6 million** within the first year of deployment—in addition to the many other benefits the department saw from the consistent application of best practices and other clinical insights.

# Better Knowledge for Everyone

C8 Health enables healthcare providers to share knowledge with unprecedented speed and efficiency across their operations. But what about organizations that lack the means to develop and maintain rich, up-to-date knowledge resources?

To meet that need, we've created the C8 Knowledge Hub — the first knowledge-sharing network seamlessly connecting departments across the US healthcare system.

Using the C8 Knowledge Hub, hospitals and medical organizations can make selected knowledge resources accessible to other institutions—or incorporate content developed by trusted outside partners into their own knowledge management system.

Participants always remain in full control of which information they share and which external resources they're incorporating into their own knowledge platform. Because no patient information ever enters the C8 Knowledge Hub, resources can be shared safely to drive better healthcare outcomes at scale.

The C8 Knowledge Hub drives key benefits for all stakeholders, including:

→ **Improving clinical outcomes** by enabling community hospitals and under-resourced healthcare organizations to benefit from clinical knowledge developed and maintained by larger institutions.

→ **Validating existing best practices** by enabling large providers to learn from peer institutions, rapidly identify and eliminate knowledge gaps, and disseminate proven best practices across networks of care.

→ **Elevating knowledge for everyone** with discussion boards to drive collaboration across institutions, support continuous learning and improvement, and ensure that every organization can access the best possible clinical knowledge.

→ **Supporting professional development** by enabling clinicians to win recognition as thought leaders in their fields, and delivering valuable insights into how their expertise is being reflected across healthcare systems nationwide.

At C8 Health, we believe that clinical knowledge isn't zero-sum: the more widely up-to-date best practices and high-quality clinical insights circulate, the better the results for everyone. By empowering clinicians and healthcare organizations to break down silos and share their insights and expertise, C8 Knowledge Hub makes clinical work more rewarding—and elevates patient outcomes across the entire care continuum.

# Elevate Your Team's Care Delivery and Productivity

To optimize care and ensure that procedures are performed in accordance with proven best practices, clinicians need real-time access to detailed, unambiguous, and consistent best practices.

This means clinical knowledge management systems need to be:

→ **Easily accessible** by anyone, anywhere, on any device, with no need to root around in ring binders or online filing systems.

→ **Seamlessly integrated** into real-world clinical workflows, with actionable insights intelligently surfaced in the moments when they're most needed.

→ **Dependably trustworthy** with vetted, up-to-date, and evidence-based policies and best practices.

→ **Intelligently managed** with automation and real-time analytics to drive continuous improvement and effectively coordinate care.

## C8 Health is the first unified, end-to-end knowledge management solution built by and for clinicians.

We understand the pressures faced by healthcare professionals. That's why we have one goal: to beat burnout and boost quality of care by making the access and dissemination of best practices effortless and effective for all stakeholders—from hospital leaders to frontline teams.

→ Get in touch today to transform the way your team uses clinical knowledge—and open the door to more efficient care and better outcomes for your patients.

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