Better Never Stops: The Road to Real Results with Virginia Mason Institute's Approach for Healthcare Improvement

Virginia Mason™ INSTITUTE

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Executive Summary

The COVID-19 pandemic has uncovered and intensified numerous challenges in healthcare, from preventing staff burnout to improving access and equity. These challenges are caused by deep and longstanding issues that, unless addressed, will continue affecting patient loyalty and staff morale when the pandemic eventually wanes.

Taking inspiration from the Heifetz adaptive leadership model, our experience has shown that sustainable solutions to these challenges require not only operational changes to how people work but also cultural changes to how organizations embody their values. For some challenges, solutions may be more operational. Other cases may lean primarily on cultural shifts. But no challenge can be solved without acknowledging and activating both.

Virginia Mason Institute helps organizations cultivate the skills and values they need to take on healthcare's biggest challenges with enduring commitment and measurable results. This includes:

- **Patient safety:** It's important for organizations to standardize processes and monitor safety incidents and concerns. But these instruments are only as valuable as a staff's commitment to using them. Organizations must foster a culture in which staff can contribute to standards and report concerns absolutely free of pushback or punishment. Fostering a culture of safety helped one 300-bed hospital in Maryland bring rates of many common hospital-acquired infections down to zero.
- **Staff burnout:** A culture of respect, which includes opportunities for staff to learn new skills and improve their own work processes, fortifies workers against the feelings of exhaustion, weariness and disempowerment that are so common in healthcare. By ensuring respect is present in everything from hallway coaching chats to professional development efforts, healthcare organizations in Wisconsin and Washington have sustained outstanding staff engagement scores — even during "one of the hardest years in healthcare."
- **Patient access and backlogs:** Organizations reduce wait times when they analyze what truly adds value for patients. On the cultural side, teams must be given the license and tools to reframe their services accordingly. When teams at a virtual fracture clinic in the U.K. did this, they replaced 61% of in-person referrals from the emergency department with virtual care plans, freeing up capacity for patients who truly needed face-to-face care.
- **Optimizing technology:** A patient-centric definition of value can also

help organizations choose technology that enhances, rather than obstructs or complicates, care delivery. Team empowerment comes into play here too, as staff input helps customize new tools and surrounding workflows to make them more efficient and compatible. In the U.K., hospital leaders are including frontline workers in a year-long project to implement a new electronic patient record system, leading to improvements not only within the software but also to work stations and other areas related to it.

- **Health equity:** A person's health, as well as their healthcare, is affected by complex intersections of social and historical factors. These factors often act under the surface of healthcare decisions, so it takes special intention to identify and uproot them. When a nonprofit hospital in California focused on removing patient barriers to routine cancer and diabetes screenings, it was able to identify patients in much earlier and more treatable stages of disease.

In the end, merging operational and cultural changes within an organization also helps it overcome the quintessential challenge of all improvement efforts: sustainment. The solutions presented here for patient safety and other challenges are built to last because they're built into the mindset and daily work of everyone on staff. Organizations in the U.S. and U.K. that have practiced this form of continuous improvement find it creates a virtuous circle: The more people who practice it, the more it proves itself. The more it proves itself, the more it spreads throughout the organization and embeds in its DNA.

Virginia Mason Institute is a mission-driven nonprofit education and training organization that is part of the Virginia Mason Franciscan Health system. We partner with healthcare leaders to dramatically improve quality, safety and efficiency through proven, patient-centered management tools and practices. Virginia Mason Institute's goal is to help teams provide better care for patients while improving staff engagement and empowerment.

Virginia Mason Franciscan Health provides expert, compassionate medical care at 11 hospitals and nearly 300 sites of care throughout the Puget Sound region. It was one of the first health systems to successfully adopt a Lean management system focused on identifying areas of waste to improve quality and efficiency, a system now known as the Virginia Mason Production System®.

Patient Safety

Healthcare teams have levied remarkable ingenuity and commitment in order to protect patients and fellow staff from infection with COVID-19. Organizations must mount a similar commitment to safety overall, by entrenching safe practices in a culture where staff feel fully supported and comfortable when following them. A safer environment for patients, in other words, depends on a safer, more transparent environment for teams.

In the years since "To Err Is Human," the 1999 report from the Institute of Medicine, patient safety has remained a fundamental but elusive goal. A systematic review and meta-analysis of observational studies, published in 2019 by the British Medical Journal, found that half of all patient harm incidents worldwide are preventable. Such incidents affect about one in every 20 patients, with drugs and other treatments as the most common factors.

Other research corroborates this. For example, a 2016 patient survey by the Commonwealth Fund showed nearly 20% of U.S. patients had experienced a medical, medication or lab mistake in the past two years. This was higher than most comparable countries, including Canada (15%), the U.K. (11%), France (8%) and Germany (7%).

Needless to say, protecting patients from harm is job number one. But if everyone understands this, and preventable harm persists, clearly something is missing.

Building a culture of safety

What causes preventable harm? Errors and omissions. The wrong dosage, a dressing poorly changed, a step skipped, a message miscommunicated.

Human error is always possible, so preventing it requires an ongoing and pervasive effort: a culture of safety. In such a culture, safety is embedded not only in caregiving protocols but also in the mindsets of individual workers. They know, from the words and actions of their managers and senior leaders, that safety is a priority for the organization. They internalize that priority. And they respect and feel ownership over the role they play in pursuing it.

Organizations create this culture through a combination of rigor and vision:

Standardizing processes, on a bedrock of trust

Patient safety is impacted by many tasks and processes beyond clinical decision

making. Examples include everything from dressing changes to communication tools and norms. The approach to tasks and processes like these often varies within an organization, one team following a different practice than their colleagues down the hall. Standardizing this work reduces the margin for error by replacing variable approaches — and their variable outcomes — with best practices proven to promote safety.

The more that standardization is normalized and practiced in an organization, the better equipped it is to respond to safety lapses and new challenges. Early days of the pandemic, for example, put everyone on their back foot. But some, like the University of Maryland St. Joseph Medical Center (UM SJMC), quickly pivoted to muster the range of protocols that were suddenly necessary. Says one senior leader, "What I believe helped us most of all was that everybody knew how to make a standard process." (Read more about UM SJMC below.)

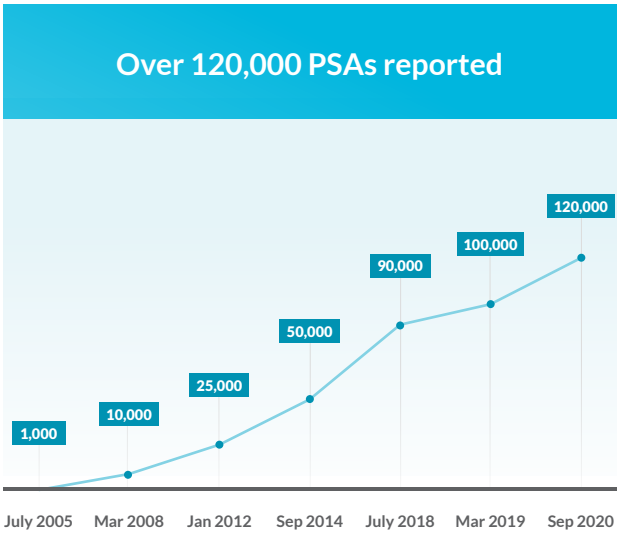
For standardization to be successful, workers must appreciate why it matters. This means not only understanding that the purpose of a standard is to prevent harm, but also trusting that preventing harm is a meaningful goal for the organization. Leaders must be consistent with communicating that goal and connecting it to individual choices and actions. Without that context, a new safety protocol can feel onerous — one more thing workers "have to do" — and they're less likely to follow it with the necessary attention and precision.
When standards are tied to an established priority, workers see them differently. They trust that new protocols are there for a reason. Instead of more hoops to jump through, new protocols are a continuation of efforts that workers already value and participate in. In many cases, this actually makes the standards enticing — a tangible way to support the cause. According to Virginia Mason Institute expert Melissa Lin, "We actually see an increase in excitement when team members see how standardization allows them to trust the system and deliver better, safer care to patients."

Solidifying trust by empowering teams and team members

To engender that trust, leaders must do two things. First, include staff in the work of developing and updating standards. This further diminishes the sense of burden and coercion. When staff have a voice, they can feel pride and enthusiasm about the rigor involved in protecting patients. It's a collective effort that they can co-design.

This comes through most clearly in the usage of safety alert systems. Many hospitals and clinics have these systems, but the approach to using them varies widely. In a culture where mistakes are punished, where job titles or strong personalities entitle some people to do as they please, or where people generally learn not to "cause a fuss," reporting safety incidents or concerns is a last and underutilized resort.
In a culture of safety, alerts are a welcome sign of vigilance and engagement. At Virginia Mason Franciscan Health, leaders

consistently reiterate to staff when and how to use its Patient Safety Alert system, even handing out awards to people whose alerts prevented significant harm or led to safer practices. This pays off for patients and the organization alike: In the first ten years of using the PSA system at Virginia Mason, staff generated 50,000 PSAs, and the organization saw liability claims drop by 74%. In the six years since, the total number of PSAs has more than doubled to 120,000.



120,000th PSA in Sep 2020

A culture of safety thrives when everyone knows it's their job to protect patients and, most importantly, no one fears retribution for doing that job. Reporting an incident, especially when it means stopping a procedure in progress, can cause tension or conflict. It's imperative for leaders to support staff members, no matter how junior, when they raise concerns. Failure to do so shows everyone that the alert system lacks teeth, and safety standards will lose meaning. When leaders back up people who raise concerns, it sends the opposite message. Many organizations point to incidents where executives back up junior staffers as turning points that solidified their new culture of safety and inspired staff to join in.

IMPROVEMENT IN ACTION

Insisting on zero harm

Key decision: Leaders make their commitment to safety firm, visible and consistent every day.

Key result: CLABSI, CAUTI and other infection rates reduced to zero.

> "It's a true culture shift, from saying we're patient-centric to actually living and breathing that every day."
>
> — Dr. Tom Smyth, CEO, UM SJMC

The Need

Five years ago, the University of Maryland St. Joseph Medical Center (UM SJMC)

had much to be proud of. The 300-bed community hospital enjoyed high patient satisfaction and had recently lifted its quality ranking from near the bottom of Maryland hospitals to the top. But incoming CEO Tom Smyth, M.D., felt "good" wasn't good enough.

Preventable harm events at UM SJMC hovered between 160 and 180 per year — an average of one event every two or three days. Dr. Smyth and his executive team that their patients deserved better.

"Fundamentally, what are we in this business to do if it isn't to give great care to people without harming them?" he says.

The Approach

UM SJMC entered a multi-year transformation contract with Virginia Mason Institute in 2017. Leaders created a patient safety value stream, with goals for the organization and a structure for holding teams accountable to those goals.

Leaders also established a daily safety huddle every weekday morning, open to everyone on staff, where they discuss events from the previous day. Once a week, these huddles are followed by a tour of what they call the "Accountability Wall," a large hallway display where teams share progress on safety improvements and other projects that are underway.

Early on, staff worried about being blamed or shamed at these meetings. But Dr. Smyth and other executives carefully focused on what allowed problems or setbacks to occur, not on who was involved. Over time, staff grew to trust the dialogue and now are eager to join.

The commitment of leaders is clear outside of huddles as well. Executives make regular rounds on the floor to check in with staff, and also respond to critical safety issues in real time.

"Twice I've come down to the OR and stopped a procedure," says Dr. Smyth. "The surgeon didn't want to, but the nurse said there was an issue, and they were right. And I'm there to show everyone that we mean what we say: This is how we do things now."

The Outcome

As a result of UM SJMC's efforts, the patient harm rate fell by almost 50% from 2017 to 2020. In fiscal year 2020 (ending in July), the hospital brought many infection rates down to zero, including central-line associated bloodstream infections (CLABSI), catheter-associated urinary tract infections (CAUTI), methicillin-resistant staphylococcus aureus infections (MRSA), and hysterectomy and colon surgery site infections. The organization's hard work continued into 2021, when it was awarded the 2021 Minogue Award for Patient Safety Innovation by the Maryland Patient Safety Center.

Staff Burnout

The significance of burnout in the healthcare industry is well known. But the causes and remedies are not. Ensuring a culture of respect and autonomy can not only help organizations avoid burnout and turnover but also power a spirit of engagement that withstands even the toughest challenges.

The COVID-19 pandemic has proven both the rule and the exception when it comes to burnout in healthcare. First, the rule: Work in this industry is stressful. According to a study in JAMA Network Open, additional work stress related to COVID-19 has led more than one in five healthcare workers (21%) to consider leaving their jobs.

Now the exception: Workers who feel respected and empowered can respond to a crisis like COVID-19 with energy and resourcefulness rather than fatigue and despair. One example comes from the Leeds Teaching Hospital in the U.K. Frontline staff at Leeds were able not only to keep up with pandemic pressures but also take an active role in improving the organization's response. This includes redesigning their COVID-19 testing protocols to ensure that 95% of each day's test results were posted to the patient's electronic health record within 24 hours of the patient being swabbed.

Looking back on efforts like this, Leeds CEO Julian Hartley, said, "We encouraged our people to 'Go and try, fail forward fast.' It worked because we'd been practicing that together for years already."

In addition to technical methods of improvement like workshops and waste walks, Leeds had practiced key cultural attributes that give workers regular opportunities to provide value. With those opportunities come a sense of purpose and fulfillment — the true antidote to burnout.

Burnout is a symptom of systemic problems

Organizations need to be frank about what burnout actually is: a feeling. Specifically, it's a feeling of exhaustion, cynicism and disassociation from work that results from being chronically exposed to stress.

Addressing burnout, therefore, means enabling workers to feel energized, optimistic and connected to their work. To feel less burned out, workers need a better experience.

In a 2019 report, the National Academy of Medicine (NAM) identified a range of "work system" factors that contribute to burnout. These include material obstacles like long hours, as well as more fluid stressors like a lack of respect and autonomy. While the

[1] The NAM report focuses on clinicians, but we believe its findings apply to anyone in healthcare.

former can be helped by improving *how work is done*, the latter requires changes to *how people are treated*.

Ensuring a respectful environment

Interpersonal behavior has a profound impact on morale and engagement. Respect is the anchor that keeps morale and engagement steady.

A respectful environment lowers feelings of burnout by giving people a voice and sense of safety.

Some organizations, including Virginia Mason Franciscan Health, codify respect in the workplace by defining a set of specific behaviors that lay out exactly what staff can expect to "give and get" from one another. Much more than a list of company values, which seldom travel beyond a website or poster, these behaviors are actively coached and reiterated through the course of daily management and interaction. They become common reference points and tactics to help workers at all levels succeed together.

More generally, leaders can foster a respectful environment by:

- Talking openly about respectful behaviors, to normalize them in the day-to-day.
- Hosting and participating in training sessions that specify how coworkers are expected to behave.
- Asking for input and feedback from people with less seniority.
- Outlining a clear path for staff development and growth, including opportunities to acquire additional skills and job tasks.

Empowering workers to solve problems

In a culture of respect, staff have a voice in how they do their own work. Without that voice, people feel undervalued and disconnected from the standards placed on them. They work not because they care to, but because they're told to. When the going gets tough, that motivation quickly wears thin.

Autonomy reduces feelings of burnout by helping workers:

- Feel pride in their work and incentive to do it well.
- Develop habits of proactivity and responsibility that keep them engaged.
- See how they contribute to broader goals, as well as how their contributions are valued by managers and coworkers.

Leaders can give workers autonomy in a number of ways:

- **Set clear expectations:** Standardize routines and communication norms to eliminate ambiguity and help workers be confident and independent in their tasks.
- **Sponsor improvement projects:** Identify job tasks and processes that support team, department and organizational goals, and set aside time and personnel to make those tasks and processes more efficient and effective. Include the people who do those jobs in the improvement efforts.
- **Enable constant improvement:** In addition to formal improvement efforts, encourage workers to point out problems and suggest solutions on a daily basis.
- **Centralize and visualize information relevant to people's work:** Give team members access to vital status information — who's in the clinic, who's working with whom, what the gaps and priorities are — so they can see and act on what's needed rather than wait to be asked.

IMPROVEMENT IN ACTION

Maintaining morale during a global health crisis

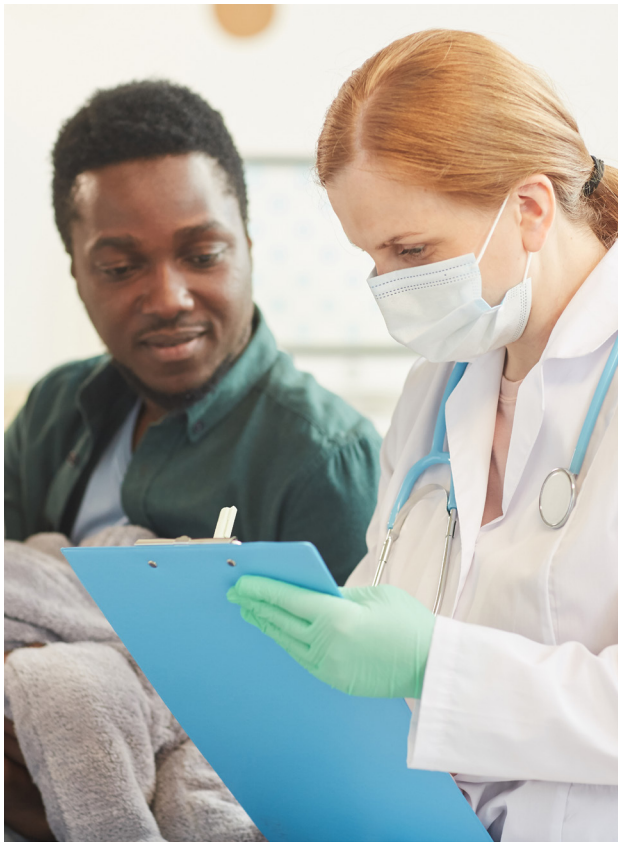
Key decision: Including behavioral skills and norms in training and evaluations.

Key result: 75% of staff believe in the organization's efforts to create a respectful environment.

> "Even in the hardest year in healthcare, people said they felt enthusiastic, energized and part of a team."
>
> — Amy Topel, Director, Organizational Improvement, UW Health

The Need

UW Health is a large system tied to the University of Wisconsin School of Medicine and Public Health, encompassing 17,000 employees across multiple hospitals. A lack of behavioral and communication norms across the system was making it hard for people to collaborate, hurting morale and contributing to turnover.



Amy Topel, director of Organizational Improvement, says leaders knew they could benefit from training: "We heard again and again 'I knew how to be a nurse' or 'respiratory therapist but I needed better resources to help me lead and engage my team.'"

The Approach

A cross-functional group of 20 people, with input from experts at Virginia Mason Institute, developed a platform of core commitments and behaviors to anchor a new culture at UW Health. The platform is called Respect for People, and it includes commitments such as "appreciate and encourage" and "listen to understand," with examples and strategies for how staff can execute them.

"Internalizing these behaviors is critical," says Topel. "Everything we want to achieve — in quality, patient service, staff experience — starts with respect."

To build this culture at large, everyone on staff received introductory training on the commitments. Topel's team, in partnership with key individuals from patient experience, human resources and patient safety, created a suite of tools and training to help leaders instill Respect for People with their teams. Leaders can access them through a private website, along with a wealth of other tools and guides to help their teams learn about and utilize the new management system.

The Outcome

Even amid the hailstorm of COVID-19, UW Heath's 2021 staff engagement survey showed strength in key metrics, including:

- "I believe that everyone can have a positive impact" — 91% agree
- "The Respect for People commitments provide a consistent set of expectations for how we treat others and our patients" — 75% agree

To further entrench Respect for People at UW Health, staff are now required to choose one of the five commitments to focus on each year, and discussions of these are included in performance evaluations.

Boosting engagement through skill building and teamwork

Key decision: Providing all team members a path for professional development.

Key result: Scores of four or better (on a scale of one to five) on metrics like Engagement, Teamwork and Career Development in a 2021 all-staff survey

> "The most important thing for engagement is to make a person's work feel meaningful to them."
>
> — Richard Furlong, M.D., Section Head, Virginia Mason Kirkland Regional Medical Center

The Need

Respect and autonomy were baked into team structure and workflow at Virginia Mason Kirkland Medical Center from the very beginning. The organization as a whole had recently adopted the Virginia Mason Production System®. So leaders at Kirkland, rather than retrofitting the system's ideas about worker autonomy and empowerment onto an existing team, had the opportunity to build teams based on those ideas.

In particular, leaders saw opportunities to enhance the role of medical assistants (MAs). In their traditional role, MAs are limited to rooming patients and staffing the phones, with little affordance to grow or advance. Many MAs decide that's not a job worth keeping. A study in The American Board of Family Medicine found the 2017 turnover rate for MAs at one large academic family medicine center was 59%. Also, at Kirkland, MAs comprise the largest employee cohort. If leaders wanted an engaged, productive staff, they knew they had to start there.

The Approach

MAs employed at Kirkland avoid monotony by breaking out of traditional silos. Over time, teams have identified numerous tasks and routines that MAs can be trained to take on, including inventory management and injection room duties. These were previously done by senior team members, including supervisors, who are now freed to focus on senior duties.

MAs also rotate regularly, taking turns on the phones and serving under different doctors. They may assist patients for multiple doctors in a single day, depending on what's needed and who's available. To allow for this, work is standardized across providers, and status updates are clearly shared through huddle boards, room tags and digital tools.

Finally, MAs are empowered in various ways to suggest and make improvements to

their work. They can send “Let’s Work on It” requests through a digital portal, post needs to a huddle board, or simply speak up.

Tiffany Bierbrauer — who joined Kirkland as an extern and is now MA Supervisor — says she often hears this happening in real time: “My office is by the phone room, and I’ll overhear an MA say ‘This process is not working, it’s adding too many steps,’ or ‘It’s unclear and taking too much time. I’m going to submit a Let’s Work on It.’”

The Outcome

A 2021 staff engagement survey revealed high scores across several important metrics:

• Engagement • Tools • Teamwork • Clinical Teamwork • Performance Check-in	4.0 out of 5
• Career Development	4.1 0.5 higher than the average for regional medical centers across Virginia Mason Franciscan Health
• Patient Safety Climate	4.2 suggesting that workers who are more empowered are also more invested

Leaders can see and feel these results every day. According to Bierbrauer, Kirkland’s MAs “don’t just come to work and do their job, they actually want to make changes and build new processes.”

Dr. Furlong says this benefits the rest of the team too: “They’re going out of their way to look for ways to help you. That’s really key — because engaged people help providers be more productive.”

Patient Access and Appointment Backlogs

It's time to look at patient access through a new lens. Big-picture assessments help illustrate the problem. But it takes a new perspective on quality and a deeper understanding of demand to resolve the problem — and deliver the right care, in the right form, at the right time.

Patients wait too long for care. A study published in the Journal of Bone and Joint Surgery predicts that, by summer 2022, the backlog of orthopedic surgery cases will top one million. In the U.K., the situation is even more dire: From January 2020 to January 2021, the number of patients waiting more than a year for care through the National Health System grew from under 2,000 to more than 300,000.

Barriers like these are much more than inconvenient. At worst, patients can suffer medical setbacks while they wait for care. At best, they lose trust in health systems and motivation to seek and participate in their own care. Meanwhile, staff feel the strain of running behind, and organizations risk reputational and financial shortfalls.

Inside the numbers: What do your patients actually need?

Backlogs and wait times help illustrate the scope of the problem, but they can also be misleading. They make it seem like the problem can be solved with bulk solutions, like expanding hours or staff. But this is like adding seats to an already crowded airplane. A few more people may get through the door, but the flight doesn't reach its destination any faster, and individual passengers continue to have a hassled experience.

The truth is, problems with access usually don't indicate a lack of resources, but rather their misuse. A great deal of staff time and appointment calendars are devoted to caregiving that doesn't reflect what patients actually need. In-person visits with little benefit to the patient, low-value tasks performed by clinicians, elective tests and procedures unlikely to improve a patient's health — these and other examples create waste in the system that obstructs access for everyone.

Organizations can address this problem with resources they already have. But first, they must redefine quality to include more of the patient's perspective.

Access improves when care is appropriate

Appropriateness is the missing link for many organizations attempting to improve patient access. It's absent from the classic healthcare value equation, which defines the value of an experience or intervention according to quality, service and cost. But a patient can receive care of the highest quality, from a team that is endlessly kind and attentive, and still get nothing out of it. If their care isn't appropriate — delivered at the right time, in the right form — it doesn't really meet their needs.

A better equation takes appropriateness into account, as well as other factors like waste. It rebuts the common perception that patients always want a high-touch experience. In fact, they run a strict cost-benefit analysis about the care they receive. If a patient is going to leave work, park, check in, wait for their name to be called, then sit in a room alone to wait some more, they expect to get something meaningful out of their visit. If they can't get it, they deserve a more appropriate form of care.

Revising the Value Equation

$$V_{\text{Value}} = \frac{Q_{\text{Quality}} + S_{\text{Service}}}{\$_{\text{Cost}}}$$

$$Q_{\text{Quality}} = A_{\text{Appropriateness}} \times \frac{(O_{\text{Outcomes}} + S_{\text{Service}})}{W_{\text{Waste}}}$$

Teams can increase appropriateness in many ways. They can reserve in-person appointments for truly high-touch cases and handle simple appointments with phone or video calls. Providers can have tough conversations with patients and colleagues about whether treatment is necessary, and in what form. Doing more than necessary creates waste, and waste inhibits access.

Teams can also make better use of their time. They can delegate tasks and responsibilities more carefully according to skill level, so that experts can focus their time where expertise is truly needed. Providers can see patients with chronic illness, like a diabetes cohort, in a group setting, addressing the needs of ten patients in a time slot that would otherwise include only one or two. Efficiencies like these free space in the calendar for more patients.

Before any of this can happen, leaders must be willing to challenge the status quo within their own organizations. Says Virginia Mason Institute expert Rhonda Stewart, "Are we just doing things the way they have been done in the past? Or are we willing to rethink the quality and value we provide for patients?"

How leaders can improve appropriateness

Organizations must empower teams to evaluate their own patient access barriers and paths to improvement. This work requires reshaping processes, workflows, and task assignments — which depends on flight testing and iteration. It can't be done from the C-suite.

What leaders can do is support their teams by:

- **Serving as problem framers rather than problem solvers —** Workers who see and schedule patients every day will have the best ideas for how to see and schedule patients more efficiently. To enable those ideas, leaders must give up some control. They must practice framing problems for their teams on the front line, so that those teams can own the work of solving those problems.
- **Analyzing true demand —** A patient backlog or jam-packed appointment calendar feels monolithic. But in fact it is incredibly diverse, and aligning services to the diversity of patient needs reduces waste and improves efficiency. This can be done in several ways, starting with direct observation of who's coming in for care, what their similarities and differences are, and how services can be redesigned to fit these patterns. From there, leaders can delve deeper, using Process Routing Charts and other elements of PQ analysis to quantify demand and map more efficient ways of meeting it.
- **Ensuring teams have the right culture and tools for testing —** Process improvement thrives on experimentation. A new way of orchestrating different types of office visit isn't born in an instant. It emerges from a series of trials and refinements. To pull this off, workers need time, clear and accessible methods, and an environment that reinforces and applauds this kind of work — and leaders must provide it. When the testing is done, leaders must also declare the new standards and hold staff accountable to them.

IMPROVEMENT IN ACTION

Reducing wait times in a high-demand fracture clinic

Key decision: Senior clinicians screen referrals in advance to determine who requires in-person visits and who doesn't.

Key result: 61% of referrals from the ED are given remote care plans rather than coming to the clinic in-person — with near-zero defects or complaints.

The Need

The fracture clinic at Surrey and Sussex Healthcare NHS Trust (SASH) averages 1,000 referrals each month from local emergency departments (EDs). Patients discharged from the ED were automatically scheduled for an in-person follow-up at the fracture clinic about two weeks later. There they'd find a packed waiting room and appointments often running one or two hours behind schedule.

While working to improve access, Dr. Murali Bhat, a senior orthopedic surgeon at the clinic, made a crucial discovery: Most of the ED's referral patients didn't gain anything from coming to the clinic in person. They were straightforward cases, with clear recommendations based on data captured at the ED. This meant patients were sacrificing hours of their lives for a follow-up they didn't need, while Dr. Bhat and his team were struggling to keep up with appointments that didn't need to happen.

The Approach

Dr. Bhat and other leaders at SASH attended weeks of training led by Virginia Mason Institute. He learned new management skills and improvement tools, which he used to improve efficiency at the hand clinic he oversees. Inspired by these improvements, his colleagues in orthopedics asked him to help resolve access problems at the fracture clinic.

Dr. Bhat and the other orthopedic specialists now personally review all referrals from the ED in advance. Based on X-rays and notes, they either recommend a follow-up appointment or discharge the patient and send them a detailed care plan instead. If the patient prefers to be seen in person or experiences a change in their condition, their plan explains how to request an appointment.

The care plans are based on clinical standards of care and are prefilled and catalogued in the team's software system. For Dr. Bhat, it takes about a minute to review a case, select components for the care plan, and complete a discharge. The team's internal research shows that patients retain much more information from the remote care plans than from in-person encounters — while requiring no

travel or wait time, no support from MAs or other staff, and no space in the waiting room or appointment calendar.

"All we do is type in a few codes, and the patient gets more from us than they would by coming to the office," he says.

The Outcome

Updating the referral process at the fracture clinic had an immediate impact on patient access:

- **All patients are now contacted within 72 hours after leaving the ED,** either with a remote care plan or information about their follow-up at the clinic.
- **61% of ED referrals were identified as low-risk and required no in-person follow-up,** freeing up appointment capacity for patients who required more in-depth care.
- **Near-zero defects/complaints** were reported among patients receiving remote care plans.
- **Follow-up patients needing an operation are now seen within one to three days** of being referred, rather than one to four weeks.
- **Local primary care providers are now allowed to send urgent referrals through the emergency channel** rather than adding them to the elective backlog, as they did before.

Optimizing Technology

Virtual care and other digital tools are as enticing as they are prevalent. But the value of technology can't be taken for granted. It should be based on how well it serves the patient, with consideration for how it affects staff.

The COVID-19 pandemic has moved virtual care from a marginal offering to a core service and patient expectation. In the U.S., the Center for Medicare and Medicaid Services covered an additional 144 telehealth services in response to the pandemic, and recently announced it would cover nearly half of those services permanently. This follows the steady inclusion of electronic health records (EHRs), online patient portals and other digital tools and platforms in the daily workflows of patient care and office administration. In general, such tools propose to make service easier and more efficient.

But many organizations learn that technology can just as easily get in the way. In a 2018 survey by Medical Economics, a majority of physicians said their EHRs made work less efficient, as well as undermined their relationship with patients. Similarly, research at the University of Missouri Sinclair School of Nursing found that telehealth services for diabetes patients doubled the workload required of nurses compared to their workload for in-person patients.

None of this is to say that technology is "bad" for healthcare. It's merely to stress that, as technology continues to grow in usage and appeal, organizations mustn't embrace it by default. They must be shrewd about the value it provides. Like with any tool, that depends on what you're trying to achieve with it.

Technology is valuable when it helps patients get what they need

As with waste and all other elements of providing care, the ultimate factor in evaluating technology should be the patient: Technology that adds value to a patient's care or experience is useful. Technology that doesn't add value to a patient's care or experience is not.

This means that patients should be considered before a new technology is even brought on board. Just like patient access, it comes down to analyzing demand: What do patients truly need? How do those needs vary across different patients? What resources must the organization have to satisfy those needs? Does that include virtual or digital tools? Often the answer is yes.

But sometimes the patient's true need isn't served by anything "high tech" at all. For example, office staff working for Dr. Bhat, the

orthopedic surgeon from our story about improving patient access, initially found that first-class mail was a more reliable way of delivering care instructions than phone or email.

Though measuring value according to the patient makes a simple rule of thumb, applying it can be very complex. To see why, let's return to the University of Missouri telehealth example from earlier. It turns out there was a very good reason that telehealth services required nurses to do more work: patients were more engaged with their care plans. They submitted blood glucose and other data much more frequently, which required nurses to update EHRs and engage with the patient more often. As a result, reports the university, "telehealth patients received more guidance to help them monitor their chronic diseases more closely, leading to more medication adjustments and lifestyle changes, ultimately resulting in better health outcomes."

When technology supports better health outcomes for patients, that's a good thing. But when it also has negative consequences for staff, it means the story isn't over. Staff shouldn't have to "make do" with an onerous process. They should be allowed to improve it.

Technology is effective when it brings value to patients AND aligns with staff needs

New tools often present new obstacles and pain points. Generally, staff are expected to adapt to the tool, not the other way around. In this light, it's easy to see why so many physicians believe EHRs make their jobs harder.

After a tool is identified as a value-adding resource, organizations can include staff in workshops and pilots to address the inevitable pain points and customize the tool for their needs. For example, UM SJMC (the 300-bed hospital featured in our Patient Safety section) conducted a workshop to improve processes in the ED. Nurses participating in the workshop came up with a new way of inputting critical information into a patient's EHR, vastly reducing the time it takes to transfer patients from the ED to the surgical floor.

3 Questions to Ask Your Technology

1. What values are we trying to provide for that patient?
    - Assess the need before adopting a new tool.
2. What is the ideal form for delivering that?
    - It might be digital, it might not.
3. How do we make this easy and efficient for the staff?
    - Include them in deployment and design.

Staff input is also invaluable for reshaping the many tasks that surround and are affected by new tech. If you digitize one part of a process, the rest of the process may not fit or flow as well as before. Teams can rethink and improve these surrounding tasks, so that the process as a whole makes the best use of the new technology and the workers' time and talents.

Digitizing workflows for the better

Key decision: Staff and patients are given opportunities to test and influence the design of a new electronic record system and related workflows.

Key result: Efficiencies unlocked within and surrounding the new software.

> "Because of our inclusive process, all the doctors and nurses and others who would normally be resistant to big changes like this are going to be advocates for them."
>
> — Tony Newman-Sanders, CCIO, SASH

The Need

Surrey and Sussex Healthcare NHS Trust (SASH) still uses paper for patient records. Leaders knew the organization needed to digitize, but they wanted to ensure their new electronic patient record (EPR) system would truly add value to patients and staff and avoid raising new obstacles.

So rather than install a ready-made version of the EPR from their vendor, SASH embarked on a year-long process of customizing it to their specific needs and opportunities. Leaders knew it would be challenging, but they could draw on the skills, techniques and culture they'd established over the course of a multi-year partnership with Virginia Mason Institute. They also knew the challenge was worth it.

"Our whole program is structured around patient journeys — inpatient, outpatient, ED, theaters, critical care — not around the software," says Ben Emly, CIO, SASH.

The Approach

Leaders dedicated a team to the program, which they dubbed eSASH. Work began with a six-week process — extended from the single week usually allotted by the vendor — to assess the current state and consider the ideal future. This included multiple workshops to get input from an array of doctors, nurses, therapists and other staff members. Next, the eSASH team created process flow charts that mapped staff and patient journeys.

"Out of that came thousands of ideas for improvement to the EPR and related workflows," says Emly.

From there, the team worked with the vendor to build out the software piece by piece. For example, when they found it took clinicians a few minutes to do a particular task in the EPR that used to take mere seconds on paper, the team insisted the vendor improve the EPR. Says Danni Roullier, eSASH change and adoption lead, "Through our work with Virginia Mason Institute, we spent the last few years telling our staff we're there to represent them and empower them. That gave us the courage — and the accountability — to hold the line and improve the EPR as much as we can."

The Outcome

The EPR implementation is expected to launch in June 2022, so SASH is still in the process of developing and improving the system. The team has made great strides along the way by refining the workflows surrounding the EPR, as exampled below.

Customizing drug carts: The eSASH team worked with floor staff to test and update several aspects of the rolling carts they take from room to room, such as installing more user-friendly keyboards and optimizing the size and location for sharps disposal containers. Using a mock-up approach, the team is improving the carts in an iterative and ongoing way, rather than redesigning them in a single push, to maximize opportunities for testing and learning.

Redesigning nurse stations: With the EPR creating new work tasks, teams had the opportunity to create new work stations. Floor staff started by building cardboard models, then the eSASH team built a life-size version out of wood on the lawn outside. Hundreds of staff and patients observed and weighed in, with the team shaving off edges and nailing together new solutions based on what they saw and heard.

"That's in our culture now, to be brave," says Emly, the CIO. "Whether it's eSASH or anything else, we'll invest the time. We'll try new things."

Health Equity

Equity plays a foundational role in patient health outcomes. Recognizing and practicing equitable skills and strategies can help organizations respond to long-unmet needs.

It is increasingly clear that social factors have a profound effect on patient health. The City Health Dashboard, created at NYU Langone Health, shows that life expectancy in the U.S. varies widely based on where a person lives. Zip codes with higher poverty rates and levels of racial segregation tend to have lower life expectancy than areas that are more integrated and affluent.

The particular role of race is highlighted by other research. For example, in a 2021 study by the Urban Institute, 10% of Black patients reported unfair judgment or discrimination in a healthcare setting based on their identity in the last 12 months — more than twice the percentage of Latino (4.5%) and White (3.6%) patients who reported the same experience. Other studies have shown that breast cancer leads to higher mortality rates among Black women than White women, despite similar incidence rates.

The COVID-19 pandemic has emphasized the need to address inequities like these. In the U.S., jobs considered "essential" during the pandemic, which carry a higher risk of exposure to the virus, are disproportionately filled by members of racial and ethnic minorities. This may contribute to the death and hospitalization rates for Black and Hispanic patients with COVID-19, which the CDC reports are more than twice that of White patients.

Equity starts with focus and analysis

Improving equity is difficult because inequities are built into the fabric of healthcare systems. They are woven into clinical guidelines, system frameworks and community origins — either by design or by negligence. People reinforce inequities in formal ways, like policy, as well as in casual behavior, such as offhand comments.

For a challenge so nuanced and embedded, organizations need to develop new methods of questioning decisions and identifying bias and other sources of exclusion. Messaging and good intentions alone are simply not up to the challenge: Staff must dig in, challenge assumptions, and hold their work accountable to standards many of us fail to consider most of the time. Until this analysis becomes second nature, it must be intentional.

Virginia Mason Franciscan Health calls this "systematizing equity," and has developed

various tools and strategies for executing it. One example is the Inequity Waste Wheel, which is a visual rubric that leaders and teams use to anticipate and address the equity impacts of their processes and decisions. The wheel articulates six specific ways that inequity can manifest in people's attitudes, behaviors and plans, such as omitting relevant data or silencing voices with valuable perspectives. Each of these amounts to a loss for patients — waste, in other words.

Teams at Virginia Mason Franciscan Health use the wheel alongside a ten-part questionnaire when crafting a process, policy, program or decision. Often it's used as part of an "equity pause," when the team purposefully interrupts the meeting or activity at hand to examine the equity implications of their work. Practices like this force people to step outside their everyday mindsets and priorities and consider how their work might make inequities worse and what opportunities they have to enhance equity.

The Inequity Waste Wheel:
A Tool for Clarifying and Reducing Inequitable Actions

Equity is about health as well as fairness

Current conversations about health equity are tied to larger conversations about social justice that encompass multiple sectors and industries. But healthcare leaders mustn't misunderstand health equity as merely a "trending topic" or matter of seeking or expressing harmony.

As shown above, social inequities threaten the ultimate priority of every leader: people's health. So every effort that organizations put into improving equity in healthcare is worth it.

The positive impact of more equitable practices is profound. New recommendations for diagnosing kidney disease, for example, which eliminate a longstanding differentiation between "Black" and "non-Black" patients, could mean a million Black Americans receive treatment earlier instead of waiting for their disease to progress. Before now, Black patients had to reach unique thresholds in lab tests in order to qualify for treatment, because of a racist assumption that Black people have higher muscle mass and, therefore, higher kidney function than other people. New research led many groups and professionals to demand a change, and in 2021 the National Kidney Foundation and the American Society of Nephrology outlined a new, "race-free" approach to diagnosis.

Perhaps the most prominent research precipitating that change was a 2020 report in the New England Journal of Medicine ("Hidden in Plain Sight — Reconsidering the Use of Race Correction in Clinical Algorithms"). In addition to nephrology, the report cited racist reasoning within cardiology, obstetrics and urology standards — proving once again how pervasive the problem is and how dogged organizations must be in their efforts to address it.

IMPROVEMENT IN ACTION

Overcoming geographical barriers to screen for chronic disease

Key decision: Making everyone responsible for the more equitable process, rather than a select team.

Key result: Cancer and diabetes screening rates surpass 2021 targets.

> "Until it becomes part of the culture — part of the check-in process, part of the rooming process, part of patient-provider conversations — we need to put special attention on this."
>
> — Sue Colby, Regional Director for Cancer Services, Marshall Medical Center

The Need

Marshall Medical Center is a 111-bed nonprofit hospital serving patients in the Sierra Foothills of California. Many of these patients live in remote rural communities, far from Marshall's facilities.

Leaders noticed that only about 50 or 60 percent of its eligible patient population were receiving recommended cancer and diabetes screenings, and they suspected geography was a factor. Patients who lived far away might make the trek to Marshall only when they're seriously sick or injured — a mammogram wasn't worth the trip. Sue Colby, Marshall's Regional Director for Cancer Services, says this was putting patients at risk. "Some of them were already at an advanced stage when diagnosed," she says.

Distance, in other words, was creating an inequity. So Marshall aimed to remove it.

The Approach

Marshall decided the best way to screen patients was to catch them whenever they happened to come in. While the initial effort was owned by the population health office, it achieved the most impact when it was integrated into day-to-day clinic operations. Here's how it works: A patient visits Marshall for any reason — sore throat, surgery consultation, etc. If they are due for a screening, a receptionist adds a prominent "green form" to the patient's chart. The provider, which could be the patient's PCP or a specialist they're seeing that day, sees the form, and recommends the patient get screened. If the patient agrees, they can get it done that day.

"That means all the outpatient clinics, scheduling, mammography — everyone had to get on board to make this happen," says Colby.

In refining the process, staff used test-and-learn methods and worker empowerment skills they learned from Virginia Mason Institute as part of a multi-year transformation contract. These helped teams improve the way bulk orders are placed in the EHR, spread the "green form" process to a range of specialty departments, and develop ways of measuring adherence and holding teams accountable.

Explains Colby, "I make a report including any patients we miss, and I send it to the clinics for them to follow up and get those screenings scheduled."

The Outcome

By October 2021, Marshall had already surpassed their goals for the year:

- Breast cancer: 73% of eligible patients screened — improvement of 13% in 12 months
- Colorectal cancer: 68% screened — surpasses 2022 goal as well
- Hemoglobin A1C: 69% screened — less than 1% shy of 2022 goal

Sustaining Improvements

Why are improvements to safety, patient access and experience, and staff engagement so often short-lived? It comes down to who owns the work: A special team or subset of workers? Or every single person on staff?

Marcia Kuklane has worked at the University of Maryland St. Joseph Medical Center for more than 30 years. She watched many improvement efforts come and go, and it had taken a toll on her and her teammates. "It's just been frustrating," the charge nurse says. "You work hard to learn the new way, then somebody changes it on you."

Her experience is all too typical. Many organizations achieve temporary success — a safety target hit, a quality award earned, a survey response turned around — only to see progress fade. So they scrap their current plan and try another.

The solutions discussed in this paper are fundamentally opposed to that pattern. Individual efforts to improve a process are experimental: they stop and start. But the overall approach to improvement never stops. Because it is followed by everyone, and it belongs to everyone, every day they're on the job.

Time and again, leaders who are willing to change both the operational and cultural aspects of their organizations find that this is what it takes to make success last. Because this is how organizations take the responsibility of improving work out of a tool, brainstorm or task force and put it into daily action. Says the former CEO of a recent Virginia Mason Institute client, "Whether I leave tomorrow or somebody else leaves — it's not about me. It is not a project by one department. It's every department doing it this way. This is who we are, and it's not something we're just doing on the side."

In the end, constant improvement depends on the workforce as a whole. Because it takes the whole workforce to elevate care for patients every day. That asks a lot of each worker, but in the right organizational culture, they answer with pride. When staff feel respected, safe to voice concerns and suggestions, and empowered to make their jobs and their patients' lives better, they are willing engines of improvement — and exactly what organizations need to move forward.

IMPROVEMENT IN ACTION

Taking crisis in stride: UW Health

UW Health was early in its limited contract with Virginia Mason Institute when

COVID-19 hit. The value streams they planned to focus on, like on-time starts for surgery, had to wait. But their new improvement system — dubbed the UW Health Way — was as vital as ever, and teams put it to use immediately.

As a result, UW Health planned and stood up all new sites for testing and, later, vaccination in under five days. From day one, they had lucid and reliable management of PPE, lab supplies and infusion resources.

Says Vice President and Chief Human Resources Officer Betsy Clough, "I remember looking at the testing site and doing, 'Wow, look at what we did.' And I have to believe that UW Health Way — if we didn't have it, we couldn't have done it as well."

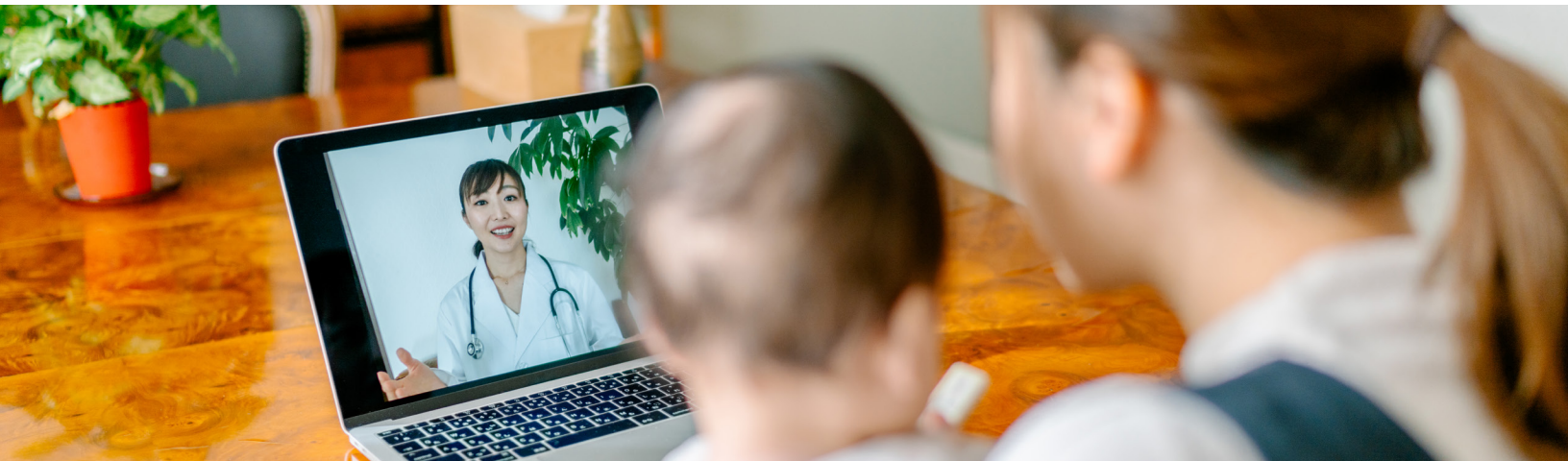
The snowball effect: Lincolnshire system

Lincolnshire system, a network of healthcare facilities serving a population of 800,000 in the U.K., had faced longstanding quality, financial and workforce challenges. To help, Virginia Mason Institute provided bespoke training courses to a total of 75 leaders, including 11 who proceeded to an advanced training course.

From these humble beginnings, a potential revolution is now underway. Through on-the-ground exercises and field work assignments that were part of the training, leaders made a variety of improvements to their clinics, including a new process for deep vein thrombosis (DVT) ultrasound that reduced wait time from ten days to 48 hours. Progress like this is exciting leaders, teams and general practitioners (GPs) across the system. In fact, two GPs were excited enough to invest some of their own budget in continued training.

Dr. Neal Parkes, a GP in the system, plans to turn his practice into an example of how Lincolnshire can transform:

> "This is a culture change, it's a lifelong learning. And we are hoping to provide a platform, to demonstrate it does work and pass it on — gently and slowly — so that others in the system can learn it works for them too."



About Virginia Mason Institute

At Virginia Mason Institute, we partner with organizations and executive leadership teams to develop and adopt a patient-centered management system to dramatically improve quality, safety and efficiency — with the goal of enabling and supporting the creation and evolution of a sustainable culture of continuous improvement. We seek to help organizations dramatically elevate the patient experience, eliminate waste and sustain excellence long-term.

Our experts are some of the most experienced healthcare improvement experts in the world. They are a multi-disciplinary team with hundreds of years of combined healthcare leadership experience in quality and safety, implementing and sustaining an improvement culture, innovation, integrated adult learning, and economic impact modeling.

Whether our clients are just getting started on an improvement journey, facing a significant challenge, or looking for a comprehensive system of transformation, our approach includes a robust continuum of services, from introductory to advanced to accelerated solutions.

Learn how Virginia Mason Institute can lead your organization toward timely, sustainable change. Visit our website or contact us to learn how we can help.

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