Care Standardization: Why and How to Make this Work

September 18-20 | Chicago, IL
Executive Summary
The Scottsdale Institute convened 19 Chief Nursing Information Officers (CNIOs) and 16 Chief Medical Information Officers (CMIOs) in Chicago for the 2019 CNIO/CMIO Summit on September 18-20. Participants represented large academic medical centers, multi-regional health systems, rural hospitals and clinics from across the nation.

These executives gathered to explore “Care Standardization: Why and How to Make this Work.” Day One of the Summit convened CNIOs. Day Two brought CNIOs and CMIOs together. Day Three featured CMIOs only. The three-day event was co-sponsored by LogicStream and Impact Advisors.

CNIOs began with a review of the CMIO/CNIO Roundtable report “Reducing the Cognitive Burden of the EMR” from the SI 2019 Annual Conference. The discussion focused on the EMR’s cognitive burden on care standardization and care-delivery reliability, CNIO strategies to reduce care variation, challenges, successes and lessons learned. Participants also discussed data quality, documentation and mobile access strategies.

On Day Two CNIOs and CMIOs tackled case studies related to clinician engagement, clinical decision support, content curation and management, governance structures and accountability. Breakout groups focused on how CNIOs and CMIOs are collaborating to reduce care variation, improve EMR usability and improve clinician satisfaction and productivity.

CMIOs used Day Three to review key takeaways from the CNIO/CMIO joint session and continue discussion on the EMR and its purported cognitive burden. They also addressed critical success factors required to standardize care and manage CDS content. The concluding conversation covered accountability, clinician engagement, documentation and innovation.

Summit Participants

Susan Armentrout, DNP, APRN, RN-BC, NEA-BC, VP, Nursing Informatics & Evidence Based Practice, Bon Secours Mercy Health

Lea Ann Arnold, DNP, RN, Director, Informatics Nurse Leader, Northwestern Medicine

Jennifer Atterberg, MSN, RN-BC, Director of Informatics, OSF HealthCare System

Kris Berkery, MD, CMIO, AMITA Health

Philip Bernard, MD, CMIO, UK HealthCare

Stacy Bizzell, MD, CMIO, Bon Secours Mercy Health

Judy Blauwet, RN, MPH, DNP, CCIO, Avera Health

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Summit Participants continued

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Brandy Fisher, RN, VP, Clinical & Support Services Integration, OSF HealthCare System

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Thomas Moran, MD, VP & CMIE, Northwestern Medicine

Richard Riggs, MD, VP & CMIO (since promoted to SVP Medical Affairs and CMO), Cedars-Sinai Health System

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Brett Oliver, MD, CMIO, Baptist Health

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Carleen Penoza, RN, MHS, CNIO, Michigan Medicine

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Summit Participants continued

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Cognitive Burden & the EMR’s Role

The overriding theme of the SI 2019 CNIO/CMIO Summit was to advance the discussion begun at the CMIO/CNIO Roundtable held at the SI Annual Conference in April 2019: How do we standardize care and simultaneously reduce the EMR’s cognitive burden? Answering this question required dives into training and education, clinical decision support (CDS), data quality and, perhaps most significant, documentation.

“People use the term ‘documentation’ for any time spent in the EMR but in fact they are using the EMR for clinical care not just documentation. Nurses claim, ‘I am documenting in my EMR for 60 percent of my shift,’ but really they are not. They are using this tool to help them make care decisions, know what work is in front of them and that is not all documentation. I am trying to unravel that a bit and help people see the other value activities in the tool so it doesn’t seem like such a burden.”

– Jennifer Carpenter, RN, VP, IT Clinical Systems, University Hospitals

Time studies offer a good means to identify what activity is actually occurring in the EMR. A few EMRs incorporate such tools to differentiate documentation from all other activity. However, doubts arose as to the maturity of these vendor-generated tools.

Intermountain Healthcare approaches EMR user activity from a more observational perspective, according to Chief Clinical Information Officer Seraphine Kapsandoy, PhD, RN. Her team observed OB nurses documenting care in the EMR using a conventional nursing-documentation tool, which they use 60 percent to 70 percent of the time, with minimal disruption to their workflow. When they observed the nurses during a c-section, however, which required a different, OR-workflow tool, they averaged a much longer documentation time of 48 minutes—and many performed documentation between two and three hours later. The study found the nurses spent a lot of time not only in documentation but in searching and gathering, which EMR analytics does not account for.

Intermountain surveyed nurses to clarify how they used documentation for patient care, the value derived and how other care-team members used it. Documentation was tied to patient outcomes, charge capture and acuity measures. The study found documentation was often structured so nurses became data-entry clerks instead of caregivers. Regulatory-driven documentation adds to burnout. As a result, Kapsandoy’s team redesigned the workflow to shift OB nurses away from the cumbersome OR tool and to more direct care, enabling them to cut documentation time for c-sections to only six-to-eight minutes.

“We try to cluster everything into documentation. We have this vendor tool that measured a nurse spending 10 minutes in documentation, five minutes with medication administration and five minutes with results review. I questioned the data. If this was accurate data I should be walking the halls and all nurses should be happy with their EMR experience. That was not the story.”

– Seraphine Kapsandoy, PhD, RN, CCIO/AVP, Intermountain Healthcare
“We remove duplication and elements that do not need to be documented as a way to increase the quality of documentation. We focus on telling the patient story and what is needed for documentation related to the quality of care. We set up reminders in the tool for critical documentation.”

– Jennifer Fogel, RN, VP Regional Nursing Informatics Officer, Northern Light Health

CNIOs are adamant about performing EMR documentation as a component of clinical care and not merely as an administrative task to prove work was done.

“We are trying to understand the right balance of alerts. Too many alerts also add to the burden. We have a committee that evaluates what alerts are of value. Associated with that committee are a few analysts. A good analyst is the key.”

– Mary Swenson, RN, Director, Nursing Services, Clinical Content, Partners HealthCare

At Memorial Hermann Healthcare System, nurses at the bedside are driving much of the discussion regarding cognitive burden and fatigue. When, for example, they “board” outpatients overnight due to unexpected complications, those patients are reimbursed at a different rate than observation patients. And, because those patients are in beds the nurses felt compelled to do more documentation as if they were actual inpatients, which they were not. As a result, Memorial Hermann created a special operational and clinical work group to analyze the workflow and reduce documentation guidelines for those patients.

“Forget about the PC for a minute and those data elements required to be collected outside the nursing discipline! What is it I really need to document from an evidence-based perspective? The discovery that a mix of patients in that area are not held to the same documentation requirements as an inpatient was a great discovery and such a satisfier to those nurses in that area.”

– Gail Roberson Rose, RN-BC, DNP, Associate CNIO, Memorial Hermann Healthcare System

CNIOs acknowledge that nursing typically assumes the key communication-and-information-gathering role within the patient care team. Shouldering this role has added to the nursing-documentation burden outside the scope of patient care.

“One way to decrease nursing documentation burden is through interprofessional documentation in which a variety of health professionals contribute to shared documentation including a shared assessment, plan of care, goal evaluation and education provided. We need to stop documenting in silos often duplicating the same findings. When it comes to documentation we should look at the opportunity to flip the paradigm and ask the question how will this inform us in caring for the patient? The focus should be more data-out versus more data-in. How will this inform us about care delivery and how do we get to that place?”

– Jeanne Roode, RN, DNP, Senior Director, Clinical Informatics, Spectrum Health
It’s not surprising that phrases like “Less is more” and “Shifting the burden” have become CNIO mantras. Shifting the burden, for example, implies a slew of strategies such as involving the patient in documentation, using predictive-systems data, automatically inputting data from connected devices and patient wearables, and allowing nurses to use critical thinking when it comes to decisions on the need for secondary screenings. CNIOs are alarmed by the investments in the “latest and greatest” predictor software or the “bright, shiny tools” that have been implemented but sit unused. They are wary of vendor-created hype around tools whose purpose and effectiveness have not been vetted.

“We integrate patient-generated data with the nursing assessment and built logic to generate high risk referrals.”
– MaryAnn Connor, RN-BC, CNIO/Director, Nursing Informatics, Memorial Sloan Kettering Cancer Center

“We need to engage the patient early on by providing tools such as questionnaires, just-in-time texting and reminders. These can engage patients and reduce the data-entry documentation burden, by way of interoperability, apps with predictive analytics and even patient wearables.”
– Darby Dennis, RN, VP, Clinical Systems & Informatics, Houston Methodist

“Another good example is predictive analytics around patient falls. The system learns the data and the nurse does not need to use another tool to document the patient’s fall risk.”
– Brandy Fisher, RN, VP, Clinical & Support Services Integration, OSF HealthCare System

A colleague agreed with the value of an analytics system that learns as it goes.

“There is an opportunity with learning systems in which you do not have to use a tool to fill out the information. Predictive analytics for sepsis is a good example.”
– Susan Armentrout, DNP, RN-BC, VP, Nursing Informatics & Evidence Based Practice, Bon Secours Mercy Health

CARE STANDARDIZATION

There was consensus among the CNIOs that as the reliance upon the EMR has evolved, care standardization has fallen by the wayside. EMR vendors are hit-or-miss when it comes to designing products based on evidence-based practice and care standardization. Vendors have responded to user requests for more CDS tools and alerts and, more recently, predictive-analytics tools. However, without care standardization in mind, the industry is now backed into a corner: a complicated documentation structure within the EMR demands intensive entry of data elements that require data capture for the sake of measuring outcomes—not for patient care.

“Building predictive analytics models and their associated alerts is adding to the burden of documentation. We keep asking our vendors for more and more and we keep introducing multiple tools; we need to stop and assess the outcomes.”
– Carleen Penoza, RN, CNIO, Michigan Medicine
The one-two punch of EMR cognitive burden and the need to standardize care has driven the healthcare industry to step back and ask: “What are we really trying to do here?” Clinicians and informaticists alike agree we need to revisit best practices and eschew the obsession with embedding hard stops to drive care, all the while ensuring the right governance is in place to drive and approve care standards and associated documentation. This realization has spurred many health systems to begin to subtract documentation from their EMR design and refocus on the fundamentals of care both to reduce burden and standardize care.

“When you do this work you need to be careful. When we work with stakeholders, what is it that they are really asking?”
– Gail Roberson Rose, RN-BC, DNP, Associate CNIO, Memorial Hermann Healthcare System

“It is important to create or leverage councils to govern change requests. The key is getting back to ‘foundation’ and doing less customization by engaging with business and clinical leaders on these decisions that can streamline workflows, minimize clicks and give time back to clinicians and patients.”
– Darby Dennis, RN, VP, Clinical Systems & Informatics, Houston Methodist

“If money was not a concern and with what we know now, we would just do a redo!”
– Ann Shepard, RN, CNIO, CommonSpirit Health

CNIOs and CMIOs are peeling back the EMR-documentation load to more deeply understand the root cause of cognitive burden. Many organizations have shifted focus to training and education especially to achieve “EMR mastery” of the skills to navigate and utilize the full potential of EMR.

“Training and mastery is at the top of our list! There are always a variety of changes coming. We use a separate company to create five-minute or shorter video vignettes for education and training. This is seen as more acceptable without going into a classroom. The idea is to have access through multiple vehicles and modalities.”
– Darby Dennis, RN, VP, Clinical Systems & Informatics, Houston Methodist

“We have found we need to focus on mastery and training. We will achieve this through provider retreats and workshops.”
– Seraphine Kapsandoy, PhD, RN, CCIO/AVP, Intermountain Healthcare

“We conduct a two-hour instructor-led course and pay for staff resources to be able to attend. We focus on tips and tricks and also add at-the-elbow support. Staff have really benefited from this approach. When utilizing the super-user model, we pay for super users to go to advanced training. Ongoing training is critical!”
– Jeanne Roode, RN, DNP, Senior Director, Clinical Informatics, Spectrum Health
We put in a nursing and medical-information-led adoption program for providers and nurses and all other care providers together. The question was: Are they adopting the workflow and are they performing the way you wish them to? The time charting has decreased and the time spent seeing more patients has increased. This is the value coming out. This approach is mandatory.”

– April Giard, DNP, VP & Chief Clinical Integration Officer, Northern Light Health

By encouraging mastery of the tools, we hope to see a reduction in redundant steps, and an increase in time spent with the patient.”

– Jennifer Carpenter, RN, VP, IT Clinical Systems, University Hospitals

At some point you need to incorporate mastery beyond the providers. If the front-end office is not mastered it stops them in their tracks!”

– April Giard, DNP, VP & Chief Clinical Integration Officer, Northern Light Health

We created a ‘peer provider educator’ role to work with physicians that need extra help—that has been a huge success with our providers, allowing them to get key workflow enhancements to become more efficient in how they use the EHR compared to other providers who are also practicing.”

– Jennifer Stebbins, RN, Sr. Director, Clinical Systems, Baystate Health

DATA QUALITY & DOCUMENTATION CAPABILITIES

When it comes to data-quality and documentation capabilities, lack of data governance and trust plagues most health systems. As a result, many organizations are launching initiatives to prioritize data-challenge solutions, including top-down data governance and standardization. A lack of data standardization combined with multiple points of data entry has contributed to a loss of data integrity. It’s now clear that users need to be involved in decision making. Nursing-informatics executives view early engagement of users in system design as key to any solution to reduce burden and standardize care.

There is a lot of noise and pressure to go after the problem of the week. We are now shifting our energies to solve for larger data-quality matters that can address many more situations.”

– Jennifer Carpenter, RN, VP, IT Clinical Systems, University Hospitals

We have governance at the executive level that supports standards, for example, how we handle weights. They support standardization of equipment. We even have a competition regarding portal enrollment.”

– Judy Blauwet, RN, DNP, CCIO, Avera Health
“We need to ask leadership what they are going to do with the burden of documentation. They need to make key determinations about how much documentation is required.”

– Susan Armentrout, DNP, RN-BC, VP, Nursing Informatics & Evidence Based Practice, Bon Secours Mercy Health

“We asked the users what pieces of data are needed to run your unit? We engaged everyone from the ground up and charged them as authors of this data. The feeling of ownership increased and now nurses are trusting dashboards.”

– Mary Beth Mitchell, RN, CNIO, Texas Health Resources

At the end of the day, nursing informatics leaders agree they need to take ownership of the effort to decrease the cognitive burden of the EMR. Keys to success:

» Training & education to achieve EMR mastery (and evaluation of competency)
» Executive leadership support and governance
» Collaborative effort among all users
» Return to fundamentals of care.

“When it comes to documentation burden, you cannot continue to keep asking nurses to document for other disciplines or roles. For every request received to add additional nursing documentation to the EMR, are you asking what can be taken away?”

– Jennifer Atterberg, MSN, RN-BC, Director of Informatics, OSF HealthCare System

“I think we are making progress. They (end-users and administration) know what to ask for. We have customized so much that it’s a challenge to share information or keep up with updates. We should “go back to foundation” also ensuring decisions are made utilizing evidence and shared governance with the right people at the table. I believe technology transforms the organization, but culture is the operating system.”

– Veronica Kiarie, RN-BC, System Director, Clinical Informatics, Advocate Aurora Health

“Take a step back and look at clinical assessment standards today. It’s ok to challenge long-standing beliefs, especially the concept of incorporating expertise from other disciplines.”

– Brandy Fisher, RN, VP, Clinical & Support Services Integration, OSF HealthCare System

“What I heard is a move away from victimization and toward taking ownership.”

– April Giard, DNP, VP & Chief Clinical Integration Officer, Northern Light Health
We customized way too much and collect way too much. We need to reevaluate what nurses are doing as part of the admission process and let other services collect the data they need for patient care.”

– Jennifer Stebbins, RN, Sr. Director, Clinical Systems, Baystate Health

“This has reaffirmed the concept to reduce the frequency of changes we plan to do. Implement less change and focus on the value proposition.”

– Jennifer Fogel, RN, VP, Regional Nursing Informatics Officer, Northern Light Health

Day 2

CARE STANDARDIZATION GROUP DISCUSSION: WHERE ARE WE TODAY?

CMIOs joined the CNIOs on Day 2 to expand the discussion regarding how clinicians spend time in the EMR on documentation and other activities that add clinical value. Nursing generally is less concerned about the number of clicks than about workflow. Still, a consensus was reached among the nurse and physician informaticists that the EMR is already clogged with unnecessary tasks and has become cumbersome to use. What can we take away?

EMR vendors still have a long way to go when it comes to predictive analytics tools—not just in their reliability, but how the data can enhance patient care. To restate the obvious: Healthcare is complex. “It’s not like shopping. You can’t equate shopping to patient care,” one clinician said. “Even different hospital floors have different cultures.” With every EMR vendor represented among the participants, CNIOs and CMIOs eagerly shared their perspectives on training, education and EMR mastery. Again, the goal: less is more without sacrificing quality. Quality, the group agreed, is a matter of managing change well and implementing priorities through the right governance.

Some of the blame for poor progress in care standardization, said several clinicians, is due to the meaningful use program. They view the meaningful use era as one in which health systems focused on getting EMRs implemented and stabilized without enough regard for deriving clinical value from them. Now we’re in a new era in which deriving value from the EMR investment is paramount.

WORD CLOUD ON THE HORIZON

Using an interactive digital polling technique to create a “word cloud” display, Summit participants answered what words first entered their minds when they heard the term Care Standardization. The dominant words in the cloud: pathways, quality, alignment and value. Participants eagerly tackled pathways in the context of the need to educate and train why we are standardizing care. Users who understand why are more likely to adopt a clinical pathway. Also, we fail to tell users what they are doing wrong. Clinical pathways can embed educational prompts to notify users, for example, that because of what they documented they may wish to consider another path. An emerging approach at Intermountain Healthcare is to move toward finding and intervening at single leverage points—which shifts the focus from following a full pathway to identifying key decision points—as the most impactful way to reach optimal outcomes.
There are two ways to look at pathways: one as a theoretical clinical standard, and two as a clinical operations standard. We have about 150 care pathways defined and about 30 implemented in the EMR. There are another 250 pathways developed by other organizations that are not a part of the EMR. We are moving to intervening at key leverage points versus forcing users to follow a full electronic care process model.”

– Diego Ize-Ludlow, MD, CHIO, Intermountain Healthcare

Interactive polling was also used to address the advancement of standardization, use of analytics to track and assist with adoption and efficiency and the required supporting structures to enhance efficacy, quality and safety. Generally, health systems have created a plethora of councils that operate as silos; the challenge is to create an oversight structure that can see the big picture. Multiple disparate entities within the organization are defining standards, and often struggle to evaluate success. Many standardization advocates are silently
frustrated with the fragmented informality of change-management structures in their organizations.

Analytics has its own challenges. Many health systems have mountains of data but lack the tools and resources to retrieve and analyze it. Data integrity is often questionable; a shortage of knowledgeable talent hinders solutions; and EMR analytics tools are seen as inadequate. On the other hand, because of the EMR standard tools—documentation templates, order sets, care pathways, clinical decision support and so on—health systems have been able to advance standardization of care practices and reduce variation. Moreover, they are now using analytics within the EMR to track clinician/physician adoption and efficiency, however, everyone acknowledged that they need to close loops to do this well, with an overall goal of “harmonization.” From a care-team perspective, it’s important to get to a flexible workflow, embraced by all members of the care team, while recognizing that reducing the variability of care is a culture change.

**CONTENT MANAGEMENT & CLINICAL DECISION SUPPORT**

The by-product of achieving the promise of health IT is the creation of huge amounts of data, which has caused health systems to critically rethink the content-management issue. It has become imperative to develop new processes to enhance health information beyond merely alerts, with the goal of developing a continuous learning environment in which clinician-centered CDS teams act as the domain experts.

Because CDS is inherently disruptive, we need evidence that outcomes are improving to justify the disruption—in other words, *measurable value*. Most organizations start CDS governance by categorizing clinical users by service line and then extending that framework to other clinical groups. While CDS governance offers a variety of design strategies, the most important factor is to ensure that medical informaticists are part of any clinical team.
The CDS life cycle—request, review, implement and evaluate—must be framed as a collaborative work with CDS users and not to them. Because clinician executives viewed CDS as too focused on alerts, University of Chicago Medicine designed its CDS teams to include a mix of nurses, analysts and physicians who are all integrated into other clinical teams and connected through clinical user groups and service lines.

"As CMIO, I am asked to appoint governance groups to move things through. Governance is whatever works in your organization."

– Sachin Shah, MD, Associate CMIO, University of Chicago Medicine

"There needs to be a variety of representatives at the table including billing, physicians, ancillary, population health and more. Each category should further be defined by venue like ambulatory versus acute care and each should have a clinical and physician leader. The design focus should be guidance versus alerts. The best CDS is the one you don’t see!"

– Michael Ross, MD, CMIO, Northern Light Health

"There is a need to selectively filter alerts and if you stay within the guardrails we will leave you alone. There should be a CDS ‘6th Right’ for gaining input from the end user. There should be a process to make changes in the CDS data via input from end users. Why not have a lightbulb for direct feedback aligned with an iterative review process?"

– Philip Bernard, MD, CMIO, UK HealthCare

CNIOs and CMIOs are frustrated with their inability to manage the proliferation of alerts and its resulting impact, which extends to increased burden on teaching and education. As a result, they have become strong advocates for a registry of vetted CDS tools available to all health systems.

"Today’s CDS is not patient specific. It’s not support; it is an inconvenience!"

– Michael Ross, MD, CMIO, Northern Light Health

When the discussion shifts from CDS to the management of external data, among the issues that arise is the concept of Open Notes. Giving patients portal access to view and contribute to their own clinical notes has become a game changer. One approach is to remind providers that their patients have the ability to read their own notes, cautioning them how notes are actually documented. Another approach is to invite patients to read and review their health information, especially the notes written after a medical visit. This strategy enhances communication between patients and health professionals and strengthens engagement with patients, helping them become more active in their own care. Open Notes is an important component in the movement to make healthcare more transparent.

"We should not dumb down our documentation due to Open Notes."

– Philip Bernard, MD, CMIO, UK HealthCare
We should build curricula around professionalism when writing Notes to ensure they accurately reflect the medical decisions and care delivered, rather than simply meeting documentation requirements.”
– Craig Umscheid, MD, Chief Quality & Innovation Officer, University of Chicago Medicine and Biological Sciences

CLINICIAN ENGAGEMENT & A CULTURE OF ACCOUNTABILITY

Launching a discussion of clinician engagement and the need for a culture of accountability is easy when you’re given an article like Why Clinicians Hate Their Computers, a piece perhaps best summarized by Brita Hansen, MD, CMO of LogicStream: “The EMR was supposed to help me create mastery over my work. In reality the system now has mastery over me. That’s led to emotional exhaustion, depersonalization and bad judgment. If you look up the actual words in the article, the EMR does contribute to burnout.”

On the other hand, many participants thought the article was just an excuse to vent, using the EMR as a too-easy whipping boy for the growing issue of clinician burnout. Others agree the article was correct to delineate the EMR’s current state as one that is fixable in ways to eliminate user stress. “It’s kind of like ‘the revenge of the ancillaries.’ If they want someone to capture a data point they use the EMR to make people do it. The true challenge is aligning with like practices. In the paper world we were comfortable with making decisions with little or no information. In the electronic world we now have access to a ton of information, which now means reviewing all the available data a provider can before making a decision regarding patient care,” said Brita Hansen, MD.

“From an engagement perspective I would like to ask physicians this question: What is best for you, spending time at home versus staying late to complete charting? Having the choice to leave work on time and participate with family, and then charting in the evening is more satisfying than getting it all done before I leave the office. The concept of ‘the digital Dr.’ works in favor of lifestyle. In reality if it’s not faster but it is better, that is a gain.”
– Matt Sullivan, MD, Associate CMIO, Atrium Health

Michael Ross, MD, CMIO at Northern Light Health shared a potential solution derived from discussions with a group of practices. “The key is to get involved with curriculum. We shaved off time from visits, saw more patients and accessed data that really told the story. You give us an hour and we will give you an hour back. We held two-hour classes and shared positive data. Consequently, we decided this was a program that we needed to start.”

“How do we integrate mastery into all of what they do? One, bring best practices to the users. Two, make the lessons virtually brief and targeted. Three, integrate humor. You need to visit the good and the bad users and those struggling as well as those not struggling. Just watch them! This improves communication about how to make things work well.”
– April Giard, DNP, VP & Chief Clinical Integration Officer, Northern Light Health
When considering the issue of accountability, Summit participants cited how much communication and nurse/provider on-unit dynamics have changed. Often common sense seems to fall by the way side. New communication tools often seem to squash critical thinking. A proliferation of these tools has replaced simple contact like a nurse-to-doctor phone call or a concise but justified documentation in the EMR. CNIOs and CMIOs urgently need a way to select the best communication mode at the moment needed.

“I am afraid we will create clinical emojis.”
– Brett Oliver, MD, CMIO, Baptist Health

“There is a need to create unified clinical communication standards. We need to get up in front of this. Otherwise we will just introduce another EMR failure!”
– Carleen Penoza, RN, CNIO, Michigan Medicine

“The stealth doctors... They place orders but you never see them!”
– Tom Moran, MD, VP & CMIE, Northwestern Medicine

ONGOING SUPPORT & GOVERNANCE STRUCTURES

Governance: It's not about the picture or the boxes on the page, it's about the process. If you've seen one informatics process, you've seen one governance structure. Among Summit participants, some CNIOs and CMIOs report directly to the CIO, while others report to the CNO or CMO or equivalent. As Day 2 wound down, participants were challenged to paint the picture of the perfect governance structure and process for informatics. One discussion table shared “The Often Overlooked Governance,” a patient-centric model that incorporates a patient-family advocate council. The portal complements the patient-centric focus, while clinical and medical governance resides outside it.

Another table described a “Neurocracy” or “The Supreme Overload Council” within which are design, build, test and production informatics groups. Over time the process of clinical value transformation streamlines supply chain and other operational processes. Ideas are submitted to a local clinical group with an embedded informatics council. Critical to the council’s success: alignment with the release-management and change-management process and embedment of informatics in-between.

“Being a big organization like Partners means you have to make it small. We have a portfolio manager to assist in management of the councils. They are more like keepers of the information of the product. It’s essential to have the ability to move quickly when needed. This is often overlooked.”
– Mary Swenson, RN, Director, Nursing Services, Clinical Content, Partners HealthCare
Breakout tables created multiple governance structures with multiple functions and participants quickly concluded that, however governance is structured, the key to success is the process implemented to support the particular structure. One team’s statement was telling:

“The perfect governance is a unicorn. Everyone can describe it and knows about it, but no one has ever seen it.”

Informatics exists to support the focus on patient and quality. Interdisciplinary participation leads to greater success by way of leveraging existing groups when appropriate, empowering those closest to the patient to make their own decisions and complementing change with transparency and respect. Process is paramount. There needs to be rigor with efficiency and agility that is endorsed and enforced by leadership.
“There is not nursing informatics and physician informatics—it’s informatics! This is the reason to be together here at this Summit. You have to sell informatics by helping the organization understand: ‘We don’t make this; we just make it better.’”

– Brett Oliver, MD, CMIO, Baptist Health

“The key is the relationships at the informatics leadership level. It’s not Doctor and Nurse anymore, it is always the combo.”

– Jennifer Fogel, RN, VP, Regional Nursing Informatics Officer, Northern Light Health

“Relationship-building and trust-building are key aspects of the CNIO and CMIO roles at Northwestern.”

– Lea Ann Arnold, DNP, RN, Director, Informatics Nurse Leader, Northwestern Medicine

Day 3

COGNITIVE BURDEN & THE ROLE OF THE EMR

CMIOs huddled solo on Day 3 to reinforce a major theme: the critical importance of having a strong nurse-informatics partner. Care standardization was another key issue, especially the lack of good CDS governance structures and processes. They expressed an urgency to clearly identify and develop informatics roles, accelerate the adoption of advanced analytics and insist that CDS teams envision a CDS-content-and-management life cycle going forward.

The journey to maturity is largely one of communication. The more comfortable EMR users become, the more they share and the more the organization functions as a community, which decreases the cognitive burden. Collectively, CNIOs and CMIOs can truly build a foundation for other struggling organizations across the country. There’s a strong desire to collaborate with like organizations, sharing CDS challenges and successes to create standardized care and improve quality.

“In the informatics world we are like a MacGyver. We always come up with a way to do something and make it work.”

– Kris Berkery, MD, CMIO, AMITA Health

“We really need to figure out how to connect globally. I am not sure how well we are doing in the context of other health systems. There may be a small organization somewhere that has a best practice we can pull off the shelf.”

– Matt Sullivan, MD, Associate CMIO, Atrium Health

“There is great room for innovation. I liked the ‘pathway point of leverage’ conversation. The relationships of the CNIO and the CMIO—I need to take care of that in my organization.”

– Marshall Denkinger, MD, CMIO, Centura Health
I think we have an identity crisis with what we do. It’s nice to come here and discover that we are struggling with the same things. The CMIO and CNIO as a team is a big takeaway.”

– Stacy Bizzell, MD, CMIO, Bon Secours Mercy Health

As CMIOs, coming to a summit like this feeds our souls.”

– Kris Berkery, MD, CMIO, AMITA Health

**CARE STANDARDIZATION: CRITICAL SUCCESS FACTORS**

Like everything else, medical staff governance is dependent to varying extents on IT, not always with good results. For example, some health systems have made the mistake of adopting immature IT tools to tie physician compensation to metrics embedded in the software, which produced erroneous outcomes. That can upset camaraderie and ruin credibility. To avoid this risk, organizations should have detailed discussions with their EMR vendors about how sophisticated their tools are before using them to make compensation decisions. Some CMIOs argue having compensation plans dependent on such software apps is doomed from the start.

“We are in a world where we are stuck with RVUs.”

– Matt Sullivan, MD, Associate CMIO, Atrium Health

Some organizations tie RVUs [Relative Value Units] to the ‘power plan’ of a specific solution. However, if you can’t get providers to use the plan, their scores will decline. Reducing alerts and tying metrics to outcomes requires that executive governance become involved in such measures. One way to achieve this: consider a reporting structure that includes the organization’s CMO. Informatics can act as the leverage point in negotiating with health plans, managing at-risk populations and providing analysis as part of their job function.

“There is a need to have the right people at the table to discuss the shiny object.”

– Diego Ize-Ludlow, MD, CHIO, Intermountain Healthcare

“We have a dotted line to the CMO. We assist with implementing quality reporting tools so they do not get in the way of effective clinical care management.”

– Richard Riggs, MD, VP & CMIO, Cedars-Sinai Health System

“So you have a team that built 3,000 alerts and are highly vested in what was built. How do you turn them off without squashing them? You need to have leadership behind it.”

– Michael Ross, MD, CMIO, Northern Light Health
CDS CONTENT MANAGEMENT: CRITICAL SUCCESS FACTORS

Many organizations are tackling the appropriate use of CDS to justify criteria for ordering radiology studies. The ACR Appropriateness Criteria® (AC) are evidence-based guidelines to assist referring physicians and other providers in making the most appropriate imaging or treatment decision for a specific clinical condition.¹

The question: Is this a radiology project or an orders project? Most Summit participants view it as an ordering project. Several organizations are involved with Stanson Health’s Advanced Imaging Content. A comparison study of the Medicare Imaging Demonstration Project against Stanson’s imaging content at a large academic medical center found Stanson was three times more effective in reducing unnecessary imaging tests. Despite Stanson’s outcomes, other organizations are developing their own solution, or are partnering with CareSelect. Regardless of the partner, members agreed this kind of approach provides data to demonstrate utilization management and negotiate an end to preauthorization—and this type of CDS helps providers engage patients by using radiology CDS to show them why a certain exam may be necessary or unnecessary.

“This all gets down to people and process. You do not have to feed content, for example, whether contrast is required or not, as it is provided by the tool.”

– Burton Hayes, MD, CMIO, Methodist Le Bonheur

“We partnered with CareSelect and have a go-live planned for 2020. It started off as a radiologist project. We decided it was a provider radiology order project.”

– Thomas Moran, MD, VP & CMIE, Northwestern Medicine

FOCUS AREA: DOCUMENTATION CAPABILITIES

CMIOs wrapped up the Summit by covering documentation, use of voice recognition, advanced tools, innovation strategies and any final challenges they wished to share. Some thought their organizations could be much more innovative. However, most believe the chief innovation officer role is growing in demand as are innovation consultancies that survey the market and vet tools and strategies for health systems. Still, even some health systems with newly-minted innovation departments are fostering few successful innovations largely due to unforeseen costs. On the flip side, some participants highlighted a handful of innovative ideas and projects.

“We do lots of clinical care innovation. We have IT rapid-cycle ideas go through an Agile team. As a whole, we have a vision to disperse innovation throughout the organization.”

– Lacy Knight, MD, CMIE, North Region, Northwestern Medicine

¹ ACR Select is a comprehensive, national standards-based, clinical decision support database comprising over 3,000 clinical scenarios and 15,000 criteria. The platform provides evidence-based decision support for the appropriate utilization of all medical imaging procedures. ACR Accreditation is recognized as the gold standard in medical imaging. ACR Accreditation helps assure an organization provides the highest level of image quality and safety by documenting that the facility meets requirements for equipment, medical personnel and quality assurance.
We started utilization of external scribes with limited rollout, and that has gone well. They are housed in India using Google Glass!"
– Michael Ross, MD, CMIO, Northern Light Health

All documentation for billing does not need to be pulled from the note….We are spending a lot of time getting information into the note. Bringing in the superfluous information creates additional time for provider to get relevant information out of the note.”
– James Schweigert, MD, CMIO, Spectrum Health

Improvement in electronic documentation innovation is a great breakthrough. We have three meetings per year with our systems-innovation group. No one really trained us on documentation so we created a physician documentation academy. We partner with the CIS team in a web interactive format. This went over well. Providers saw increase in value. This new-found way to reach physicians in masses has improved the quality of documentation.”
– Burton Hayes, MD, CMIO, Methodist Le Bonheur

Final Thoughts

“You are a lot stronger together with nursing as a partner than not.”
– Louis Capponi, MD, VP & CMIO, SCL Health

“You guys are giving us your innovations; I am just giving you what we do every day.”
– Marshall Denkinger, MD, CMIO, Centura Health

As the three-day conversation concluded, participants were already looking forward to advancing its themes: How can we continue to build standard documentation and CDS governance that facilitates the decrease of the cognitive burden of the EMR? They universally agreed on the importance of developing a collaborative CNIO/CMIO leadership structure to guide healthcare into the future. CMIOs look forward to addressing perhaps the most important question of all: How can we continue to expand the CNIO/CMIO informatics community through collaborative benchmarking and information sharing?
About the sponsors

The Scottsdale Institute (SI) is a not-for-profit membership organization of prominent healthcare systems whose goal is to support our members as they strive to achieve clinical integration and transformation through information technology (IT). SI facilitates knowledge sharing by providing intimate and informal forums that embrace SI’s “Three Pillars:”

> Collaboration
> Education
> Networking.

SI Affinity Groups offer a popular way to focus on a shared issue, topic or collective challenges. They can be title-specific or a mix of executive titles focused on single issues like Digital and Population Health, Cybersecurity, Clinical Decision Support, Data and Analytics and others. Affinity Groups convene in a variety of ways including Dialogues, Summits, Ad Hoc Queries, Site Visits and Roundtables.

For more information visit [www.scottsdaleinstitute.org](http://www.scottsdaleinstitute.org).

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