



We need the ability to constantly ask questions and have someone else help us research the answers. This supports the improvement process.

Matthew Graczyk, MD
Surgeon
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resources to collect and assess available evidence for selected clinical conditions, making it easy for participating physicians to review the evidence rather than spending their valuable time searching the literature.

Peer-reviewed and approved clinical practice guidelines

Allina recognized that a system-wide policy on guidelines would support and uphold the EBDM model. Accordingly, this policy was comprised of several key elements. First, it includes a process for peer review and approval of proposed guidelines and a central repository to access approved guidelines. In addition, Allina established a multidisciplinary physician-led Clinical Practice Council to prioritize, develop, and make peer-reviewed, evidence-based recommendations for specific system-wide issues such as opioids for acute pain, medical cannabis, and appropriate age for mammography screening. Allina's senior leadership made their support visible throughout the entire process.

Prioritizing improvements

Initial focus was on clinical areas that represented significant variation in practice and/or where there was a lack of consensus. High motivation and readiness among providers to adopt evidence-based clinical practice guidelines prioritized initial phases testing the EBDM model. Two areas in particular were identified for initial improvement:

- Lung Cancer Stage 1. Allina's objectives in this area were simple but ambitious: reduce variation in Stage 1 lung cancer treatment (surgery vs. radiation) and improve outcomes. To accomplish this, Allina set its sights on developing and implementing standard evidence-based practices by 2016 across three major hospital-centered programs.
- IV heparin. IV heparin is widely used for patients with multiple protocols for various disease conditions, and is often unique to different hospital settings. Here Allina aimed to improve safety of intravenous heparin treatment by reducing the number of protocols used across the system, standardize the intravenous heparin treatment protocols across the system, and reduce cost via standardized aPTT monitoring.

Checklist for clinical practice guidelines

A thorough checklist was created for guideline development, implementation, and adherence. First, guidelines are to be developed by knowledgeable, multidisciplinary panels of experts and



Standard, evidence-based clinical practice guidelines were critical to our ability to deliver on the IHI's Triple Aim.

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representatives from key affected groups. From there, they must adhere to certain important criteria.

- Guidelines should always consider important patient subgroups and patient preferences.
- Guidelines must be based on a systematic review of the existing evidence using a systematic framework, such as the PICO framework. (Since implementation, Allina has developed 28 PICO statements.)
- Guideline development must also be based on an explicit and transparent process that minimizes distortions, biases, and conflicts of interest, and is consistent with hospital policies related to the code of ethics.
- Guidelines must provide a clear explanation of the logical relationships between evidence and practice, and when available, provide ratings of both the quality of evidence and the strength of the recommendations.
- Guidelines must include a plan for review modification within a maximum period not to exceed three years.
- Guidelines must include a plan for monitoring adherence.

Engaging and collaborating with clinicians

Working together, healthcare providers, knowledge acquisition experts, program managers, and others helped move the project efficiently from development to full implementation—and then to even further scaling out. Allina was able to overcome clinical skepticism through a combination of engaged physician leadership, education, collaborative guideline development, policies, and effective communication. Hiring a dedicated resource who could own this work was also vital to clinician engagement as well as the overall success of this initiative.

With the EBDM model in place, Allina will leverage its deep partnership with Health Catalyst® to extract near real-time data in the analysis of compliance and the impact these guidelines are having on outcomes.

RESULTS

Allina has created and adopted an effective, system-wide EBDM model that facilitates collaborative guideline creation. The success here rests on the collaborative approach Allina took to developing the model, backed it up with a policy, and implemented across the health system over a 9-month period. Indeed, the EBDM initiative



In order to be successful, you need strong physician leadership, a rigorous development model, and a process to build consensus.

Salvatore Bognanni
Director, Quality, Safety and Accreditation, Allina Health

reinforced system-wide collaboration and partnerships across Allina. Preliminary results from testing of the model indicate high stakeholder buy-in, utility, and feasibility within the current system.

Allina has also observed an overall increase in understanding of, and appreciation for, systematic approaches to EBDM. As for the costs of implementing the EBDM model, beyond one incremental full-time employee and portions of people's time, these costs have been minimal.

- ▶ **19 system-wide approved evidence-based guidelines developed months faster.** Prior to the EBDM initiative, the time to develop and establish system-wide evidence-based guidelines varied (depending on complexity, number of multidisciplinary team members, etc.), but typically took many months, if not years. By May 2015, with a well-resourced EBDM process in place, this time to develop and implement was reduced by many months to a typical range of 3-6 months. Since implementation of the policy, 18 approved system-wide evidence-based guidelines are in place with more in development.
- ▶ **5 percent reduction in Stage 1 lung cancer treatment variation.** Collaboration worked here, as well. Three separate hospital-centered oncology programs worked together to identify how to determine optimal treatment, with the initial focus on reducing variation in treatment. Pre-implementation, the largest spread in variation between surgery and radiation therapy was 27 percent. Six months post-implementation, this was reduced to 22 percent.
- ▶ **20 percent decrease in the number of heparin protocols.** At the start of the project, there were numerous site-based heparin protocols across Allina Health. By October 2015, the number was reduced to four standardized system-wide protocols to be fully implemented in the spring of 2016.
- ▶ **Implementation of a system-wide, evidence-based guideline for acute pain management with opioids.** Early evidence suggests that it is changing physician practice patterns in ways that are benefiting patients.

WHAT'S NEXT?

Allina is continuing to spread the guideline development policy and EBDM model to additional clinical areas and conditions. Allina also continues to develop and implement metrics and acquire

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Building a blueprint for
all of us to use was a
cornerstone to our success.

Salvatore Bognanni
Director, Quality, Safety and
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data to measure compliance, drive accountability, and document improvement in clinical outcomes and costs. ⚡

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