

ProVation® Order Sets powered by UpToDate® Decision Support

Integral to Building Signature Healthcare Brockton Hospital's Library of Evidence-Based Order Sets

CASE STUDY



CUSTOMER PROFILE

Recognized by the Premier Healthcare Alliance as a winner of the Premier Award for Quality (AFQ), Signature Healthcare Brockton Hospital is a 253-bed private, not-for-profit teaching hospital and the only full-service facility in Southeastern Massachusetts.



Part of Signature Healthcare, Southeastern Massachusetts' largest integrated healthcare system, the hospital is the region's safety net hospital and third largest provider of uncompensated care. The hospital's areas of excellence include cardiology, emergency medicine, maternity care, pediatrics and cancer care/radiation therapy. It is also the state-designated regional site for radiation therapy and cardiac catheterization.

CHALLENGE:

BUILD LIBRARY OF EVIDENCE-BASED ORDER SETS

Over the years, the hospital had developed a handful of order sets that were used primarily by hospitalists for admission diagnoses and emergency care. However, hospital leadership recognized that achieving Signature Healthcare's goal of enhancing quality and safety through the practice of evidence-based medicine would require significantly expanding the number of order sets available to clinicians.

"The whole purpose of standardized order sets is to enhance the quality of care we provide based on medical evidence and proven best practices," said Dr. Marc Greenwald, Chief of Medicine, Signature Healthcare. "By providing our physicians with guidance, and support for their care decisions, evidence-based order sets help ensure we are doing everything that is necessary for the patient and nothing that is not."

The challenge, however, was a lengthy, manual and somewhat informal order set development process that often took months. In most cases, a member of the clinical staff would determine that an order set was needed, draft it and manually research any supporting medical evidence. The draft was then printed and

distributed along with hard copies of the supporting literature to the appropriate committee for review.

During the review process, the committee would often have to re-validate the medical evidence to support any requested changes. It would also ensure that the order set was configured in a way that met the criteria of a Medical Records Committee.

When the order set was finally approved, it was scanned into the hospital's clinical information system. From there, hospitalists were able to print a copy and complete the order set by hand for inclusion in the patient's care plan.

"There was no goal or strategy for developing order sets. A few people would decide they needed one, they'd create it and that would be the end of it," said Dr. Greenwald. "There was no automation and no process in place for authoring or reviewing. It often took many months for an order set to be approved, because every revision was sent back to the original author. Most of the time, drafts were criticized not for their medical content, but because of how they looked."

GOAL:

STRATEGIC, STREAMLINED ORDER SET DEVELOPMENT

For Signature Healthcare to quickly and efficiently build a sizeable library of standardized order sets, the first step was to establish a formal strategy for identifying which were most needed and assigning responsibility for their development. Equally important was a process that leveraged technology to streamline writing and long-term management, based on both scientific literature and internal and external best practices.

"Everyone talks about evidence-based medicine, but the reality is that only about 20% of disease states have established treatment strategies that are based on strong medical evidence. Often, treatments are based primarily on physician experience," said Dr. Greenwald. "Our goal was to take all that – accepted medical evidence and established best practices – and incorporate it into a fluid order set that was under constant surveillance to determine when updates were necessary."

To accomplish this, the hospital established a series of oversight committees. Reporting to these committees were the department heads charged with identifying the most clinically relevant order sets and overseeing their development. Priority was given to order sets for complex DRGs and those with wide practice variations.

With the strategic plan and formal development process in place, the next step was to identify an application that would accelerate and automate the authoring, review, deployment and maintenance of evidence-based order sets.



DR. MARC
GREENWALD,
Chief of
Medicine,
Signature
Healthcare

SOLUTION:

PROVATION® ORDER SETS, POWERED BY UPTODATE® DECISION SUPPORT

Signature Healthcare had several expectations for the software solution it would ultimately select to automate the order set development process. It needed to be user-friendly, and easy for clinicians to navigate. It could not require any special interfaces. Also paramount was easy access to trusted medical content that could be electronically attached to the order set.

Finally, the hospital wanted a way to automatically and continuously monitor the scientific literature upon which its order sets were based for any changes that might trigger an update.

The hospital ultimately selected ProVation® Order Sets, powered by UpToDate® Decision Support, an innovative order set development solution from Wolters Kluwer Health. ProVation Order Sets combine ProVation Medical's award-winning technology platform with UpToDate's premier clinical decision support content to streamline the delivery of standardized care for improved patient safety, outcomes, clinician performance and regulatory compliance.

"ProVation Order Sets make the entire order set process extremely efficient. We can use one of the hundreds of predefined order sets supplied with the system, or in 25 minutes, we can develop a custom order set. For reviewers, editing takes another 15 to 20 minutes," said Dr. Greenwald. "Also important was the ability to link to UpToDate during authoring and review, and at the point of care. Finally, we were impressed with ProVation Order Sets' monitoring capabilities, which automatically alert us when something like a drug recall or new medical evidence may require a change to a given order set."

EXPECTED OUTCOMES

With an efficient development and maintenance system in place, Signature Healthcare expects to see a significant reduction in the time required to develop and achieve consensus on order sets. Their vision: one consecutive hour of work from start to finish, with a brief meeting for revisions as needed.

Deployment of ProVation Order Sets is also making it possible for the hospital to eliminate treatment variations for more consistent care processes. Further, because ProVation Order Sets link to UpToDate and other trusted medical content, clinicians are less likely

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to order diagnostics or treatments that, while not inappropriate, are not medically necessary in many situations.

"When you have an order set that links directly to the literature, it guides physicians in ordering only what is necessary, as opposed to taking a 'freehand' approach," said Dr. Greenwald. "While we can't expect every patient to fit into a cookie cutter, there are still many patients who only need the basics. ProVation Order Sets help us differentiate more effectively. That's quality."

As an example, Dr. Greenwald notes that while some patients who present with a kidney infection require imaging, many do not. Order sets developed with ProVation Order Sets and linked to *UpToDate* will alert the treating physician to review the criteria for a CT scan of the kidneys and provide them with the

evidence to help determine whether or not to order the procedure based on that particular patient's situation.

This helps limit unnecessary treatment and the costs associated with it while also reducing opportunities for adverse events and side effects. Because the order set has been approved by Signature Healthcare and is based on trusted medical evidence, it also provides physicians with a level of comfort when they are ordering treatment that is outside their usual practice patterns.

"In general, the best quality care is also the least costly," said Dr. Greenwald. "If we provide better quality of care by administering the ideal level of treatment rather than all possible treatments, whether needed or not, we are reducing costs and side effects with costs being the less important of these two."