CASE STUDY

Elsevier Order Sets

How Elsevier helped University of Kentucky HealthCare®
bring order to their order sets.

EXECUTIVE SUMMARY

With more than 9,000 healthcare workers across four hospitals,
80 specialized clinics and over 140 outreach programs, University
of Kentucky HealthCare® struggled with an inefficient order set
management process. The clinicians had to maintain thousands of
scattered order sets, search for applicable evidence, and navigate
through complex workflows.

In February 2013, UKHC began using Elsevier Order Sets, a solution
that allows order sets to be easily authored, reviewed, and managed
in a collaborative environment.

Today, UKHC creates order sets in a fraction of the time, and
workflow and management has significantly improved for all users.

ELSEVIER

Elsevier's cloud-based order set solution addressed University of Kentucky HealthCare's core challenges.

"The order sets are now evidence-based. This provides consistent, quality care."

JULIAN STEELE, RN
Information Technology – Informatics

UKHC FACED ORDER SET REDUNDANCY and format variances, which made authoring and upkeep difficult.

As a matter of fact, 81% of hospitals agree that integrating order sets into clinical workflows is a challenge.[1]

With its large number of healthcare providers across numerous locations, UKHC was struggling with an immense number of order sets in place.

"We were facing countless, [even] thousands of poorly maintained and poorly designed order sets," said Dr. Joseph Bobadilla.

In addition, UKHC lacked a schedule to review or revise orders. "It was always a challenge to get teams of providers together to review order sets," said Julian Steele, RN, Information Technology – Informatics.

UKHC is not alone in these challenges: 74% of hospitals say that the order set authoring, approval, and maintenance process is difficult to manage.[1]

BY USING ELSEVIER'S SOLUTION, Order Sets, UKHC was able to import their existing order sets and catalog them to a single database, which allowed the clinicians to work with their unique formulary and vocabulary.

"They are in a central location with easy access to make updates. Order Sets put [the process of] building the content in the hands of the providers, allowing for collaboration across disciplines," said Steele.

"Now that we have multiple disciplines involved, we can eliminate unused order sets," said Steele.

UKHC users now have more time with their patients. They save time authoring or updating, they can quickly realize the impact, and they can get rid of unused or redundant order sets in a collaborative environment.

THEIR NEXT CHALLENGE was connecting specific quality measurements to their order sets.

In every healthcare system, clinicians need a way to standardize care delivery to reduce preventable complications for the most common complaints.[2]

Dr. Bobadilla, Director of Clinical Decision Support at UKHC, and Steele agreed that evidence-based order sets are necessary to provide consistent, quality care.

In fact, 55% of clinicians place evidence-based content as a top priority, yet 52% of hospitals don't have adequate access to reliable content.[1]

Providing clinicians with agreed-upon standardized orders can help them select appropriate doses, routes, and other parameters when prescribing medications.[3]

Finally, limited collaboration and communication capabilities on the previous platform hindered clinician usability.

ELSEVIER ORDER SETS HELPED UKHC improve adherence to quality standards of care with its collaborative environment and evidence-based content for clinical decisions.

UKHC has enlisted clinical teams to ensure that order sets are supported by appropriate medical evidence.[2] This gives staff an opportunity to have open conversations about patient-centered care.

"We're seeing definite trends of improved adherence to quality metrics," said Dr. Bobadilla. Steele added, "[Ultimately], our patients benefit."

As a result, accuracy has also improved. "We have identified numerous [miscalculations], like using expensive tests when better and cheaper alternatives are present," said Dr. Bobadilla. "Previously, these would likely have made their way through the system."

32%
of Order Set users said a top need was simplicity in the author, manage, and collaborate functions.[1]

87%
of hospitals feel that their internal IT and informatics resources are inadequate.[1]

UKHC'S FINAL CHALLENGE involved development inconsistencies, which made authoring a slow and disconnected process for users.

"We previously spent 8 hours on a simple order set on the technical side," said Brig Wakeland, Information Technology – Patient Care Services.

Not only is time a pressing issue, but the sheer amount of people it takes to create, approve and maintain an order set lengthens the entire process, leading to dwindling physician engagement.

The combination of these challenges caused gaps in understanding and consistency across disciplines. UKHC lacked a central governing body to pull all of these ends together.

UKHC needed a system that sped up the process while delivering quality, consistent care.

ELSEVIER ORDER SETS allow "faster time [from creation] to resolution and completion," said Dr. Bobadilla.

"UKHC has reduced completion time from eight hours to two hours per order set."

In addition, a Clinical Decision Support committee was created to develop a communication plan, and establish goals, rules, and processes for new work requests.

The team, led by Dr. Kevin Hatton, set benchmark goals to clean the entire catalog and annually review each order set.

By implementing this structure, they increased physician engagement and crafted a plan with the clinicians in mind.

OVERALL, ELSEVIER ORDER SETS solution has created a sense of routine and urgency within a standardized platform.

UKHC's immense number of order sets has been consolidated to a central location and unused ones have been eliminated. "Now that they are driven by evidenced-based standards, it empowers clinicians to provide consistent, quality care," said Steele.

The collaborative environment Elsevier's solution provides has benefitted UKHC in a number of ways. "Collaborative efforts have improved team dynamics," said Dr. Bobadilla.

The technical management and authoring of workflows has also become more efficient. Elsevier's solution "does about 80% of the technical configuration. We do about 20%." said Wakeland.

Dr. Hatton stands by the fact that a governing body dedicated to Order Sets is improving clinician effectiveness throughout the enterprise. He urges those tackling similar issues to:

- redesign processes to align with administrative goals for safety and efficiency

- define governance issues early on

- design the style guide with clinicians in mind

- engage physicians and users throughout

The organizational and technological improvements that Elsevier Order Sets provides have successfully impacted the quality of care at University of Kentucky HealthCare.

1 Elsevier. (2013). [A More Practical Approach to Order Sets]. [Infographic].

2 (2014). "The Four Essential Steps to Effective Order Set Management and Their Implementation at University of Kentucky HealthCare."

3 (2015). Value Selling Workflow: Sales Training on Value Trees and Battle Cards for Order Sets and Care Planning.