Harris County Hospital District: 963 Beds  
Houston, Texas  
EBSCO Customer since 2007  

EBSCO Solutions:  
- CINAHL® Plus with Full Text  
- Consumer Health Information  
- DynaMed™  
- Nursing Reference Center™  
- Patient Education Reference Center™  
- Multi-language patient education including Arabic, Farsi, French Canadian, German, Hindi, Italian, Japanese, Korean, Polish, Portuguese, Russian, Simplified Chinese, Tagalog, Vietnamese, and Traditional Chinese

“Direct access to the evidence-based nursing and patient education content from the care plans in Epic have been received with enthusiasm and excitement…a lot of ‘well look at that’ and ‘ooh-ahh!’”  

David W. Burnett, RN, MSN  
Nursing Director  
Clinical Information Systems  
Harris County Hospital District

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<th>Challenges</th>
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<td>Create robust, evidence-based care plans quickly and efficiently</td>
<td>Reviewed the care plans and the problems within each to map best available evidence to enhance 56 care plans, covering 130 problems</td>
<td>Support for “just in time” evidence-based practice at the point-of-care</td>
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<td>Provide a definition of the goals, if met, based on the evidence and standardize the goal criteria to be met</td>
<td>Mapped patient education from Patient Education Reference Center™, including discharge instructions, to each care plan</td>
<td>Standardization of care delivery from 3,000 nurses to provide for best evaluation of outcomes</td>
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<td>Provide the evidence, at the point of documenting, from the care plans embedded in the Epic system, their EMR (electronic medical record)</td>
<td>Leveraged Nursing Reference Center™ to provide defining characteristics of each goal, based on the evidence</td>
<td>Nurses can access the right content, in the right place, at the right time to improve quality of care through links from Epic</td>
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<td>Provide evidence-based patient education, including discharge instructions, links at the point of documenting in the EMR</td>
<td>Provided persistent links to contextually-relevant evidence</td>
<td>Relevant and easily accessible patient education in Epic, at the point of documenting, which can be printed and delivered to improve patient satisfaction</td>
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Overview:

Harris County Hospital District (HCHD) is a community-owned healthcare system in Houston, Texas, which includes three hospitals, 13 community health centers, nine school-based clinics, 13 homeless shelter clinics, five mobile health clinics, a free-standing dental center and a dialysis center. Its mission is to improve the community’s health by delivering high-quality healthcare to Harris County residents. In 2009, HCHD received the Golden Seal of Approval™ from the Joint Commission for the provision of such high-quality services.

Challenges:

The Harris County Hospital District Magnet Journey
HCHD is working toward becoming a Magnet hospital. To move closer to this goal, there was a need to integrate evidence-based nursing practice into the Hospital District’s service delivery and to do so for all nurses in the system. As a result, in 2009, HCHD chose EBSCO Publishing’s (EBSCO) Nursing Reference Center™ (NRC) and Patient Education Reference Center™ with content available in 17 languages as a clinical decision support resource to deliver the best available evidence at the point-of-care. HCHD nurses began rigorously consulting Nursing Reference Center’s thousands of documents to create care plans, which would eventually be loaded into their electronic medical record (EMR) system from Epic Systems Corporation.

Incorporating Evidence into Care Plans
Harris County Hospital District’s Nursing Director of Clinical Information Systems, David W. Burnett, wanted the care plans to not only reflect the best available evidence, but also incorporate the evidence directly into the care plans, within the EMR. The vision was that the evidence could be made available, relative to all of the problems and goals created in HCHD’s set of more than 50 care plans. This would allow the nurses to have access to relevant information at the right time in their workflow. With more than 3,000 nurses, this access would enable them to base their patient care decisions on the best evidence and to continue to improve the overall quality of care. Burnett noted, “Incorporating the evidence directly into our nursing care plans would support our nurses’ ability to provide the best quality of care and further demonstrate our commitment to nursing excellence, to our nurses, and the community.” In addition, the development of the care plans also identified the need for HCHD to associate appropriate patient education content with each care plan.

Burnett describes the entire experience as highly beneficial “because to review literature across thousands of journal titles, evaluate, and synthesize the evidence, and then create care plans would be highly time-consuming; instead, we used Nursing Reference Center’s synthesized evidence, which enabled us to create effective care plans rather quickly!”
Solutions:

Partnering to Align Care Plans with Evidence
HCHD partnered with EBSCO Publishing to verify and support the care plans with the appropriate evidence. Burnett shared with EBSCO the complete set of care plans that HCHD built, using Nursing Reference Center. The care plans created by HCHD contained more than 130 unique problems, each with its own goal and goal description. For example, the goal “electrolyte balance will be within defined limits” contained the following goal description “Baseline EKG will be normal, lab values will be within defined limits. There are no signs of dehydration.” Burnett also wanted the goal description optimized, in the sense that it became a reflection of the best available evidence, found throughout the evidence-based content in NRC. He also was interested in validating whether HCHD’s interpretations of the evidence in Nursing Reference Center would concur with the nursing experts at EBSCO and Cinahl Information Systems, a division of EBSCO Publishing, and the content creators for NRC. Burnett said that “Creating and implementing care plans into the EMR is not easy, but we needed to do this and do so with the best available evidence supporting the plans. The care plan review that EBSCO completed saved time and helped HCHD to improve the foundation on which HCHD nurses are delivering care each day.”

Reconstructing the Process
EBSCO’s nursing experts at Cinahl reconstructed the process that HCHD care plan creators had done; they searched Nursing Reference Center by system, problem, and disease, reviewing the problems and goals in the care plan, and mapping and integrating the content to strengthen the care plans. The problems and goals were enhanced with additional evidence and mapped to the NRC Quick Lessons, Evidence-based Care Sheets, and Nursing Practice and Skills. Goal descriptions were also reworded as necessary, to allow nurses to easily consume the content. Essentially, EBSCO confirmed that the HCHD care plans were appropriate and reflected the latest evidence. EBSCO provided links in the care plan, out to the supporting evidence in Nursing Reference Center, also incorporating links to appropriate patient education materials desired by HCHD. It was a collaborative process between HCHD and the EBSCO team, achieved through rapid review cycles, discussing and reviewing the care plans’ evidence, quickly sharing feedback, and adapting the care plans as necessary. According to Burnett, “We appreciate the ability to have evidence updates immediately, from the persistent links in Epic, without having to build them into the system.”

The HCHD care plans, with all of the goals reviewed and links for each problem, were delivered in two phases, allowing HCHD to do two things. First, they reviewed the evidence reflected in the goal description and mapping of each problem to NRC for accuracy in care planning. Second, HCHD loaded the care plans to an EMR test environment and tested them to ensure optimal functionality. The care plans, along with the persistent links out to Nursing Reference Center content, were easily loaded to the EMR. In the fall of 2010, HCHD successfully launched the care plans in the EMR, with Nursing Reference Center evidence embedded in the goal description and persistent links to Patient Education Reference Center, across the three hospitals.
Benefits:

Within HCHD’s care plans today, nurses can simply click on the “EBSCO Evidence” link to access current evidence, which is relevant to the problem and goals within the care plans. The evidence is always current; nurse writers at Cinahl Information Systems systematically conduct a 7-step evidence based methodology to ensure the best available evidence is accessible. Nurses’ reaction to the readily-available information has been very positive. Burnett says, “I’m very pleased to see evidence available to our nurses, where they need it most. Our care plans are outcome-focused and evidence-based. This empowers us to provide the best care.” This integration allows for improved care plan documentation. With the evidence embedded in the goal description and additional content on the topic readily accessible from the EBSCO links, nurses can assess the patient’s status better and document the goal outcome more accurately (e.g. “not met this shift”).

Access in the Patient Record Saves Time

In addition, all of the directly-applicable patient education for each care plan topic was loaded into the patient record, which is accessible when the nurse selects a particular care plan for the patient. This saves time, as nurses don’t have to search again for the same content and also ensures consistency in the provision of the appropriate patient education materials. From these links, nurses also have quick access to multi-language patient education materials, including such languages as Korean, Vietnamese, and many others, to improve patient understanding and patient satisfaction.

Today, nurses can access evidence throughout their workflow, inside the EMR and additionally through EBSCO’s persistent links. With the care plan implementation completed, Harris County Hospital District has started to see great improvement in their documentation and has started to evaluate the impact by examining outcomes. HCHD also will continue improving documentation as it uses Nursing Reference Center to review and refine the scope of care plans over time.

To learn more about EBSCO’s Nursing Reference Center™ and other evidence-based clinical and rehabilitation products contact information@ebscohost.com or visit http://www.ebscohost.com/pointofcare.