Accessing Evidence-Based Resources
via EMR at the Point-of-Care

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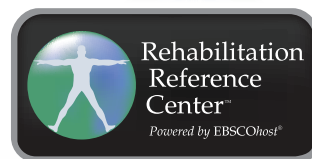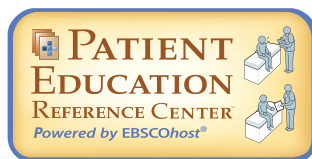
☑ **Accessing EBSCO's evidence-based content via Electronic Medical Records**

☑ **Case Study – Incorporating evidence into care plans within the EMR at Harris County Hospital District**

☑ **Overview of EBSCO's point-of-care products**

EBSCO's point-of-care resources include unlimited local and remote access at **no additional cost**, providing a cost-effective solution for any institution looking to integrate content into their EMR.

EMR

- O **Allscripts**
- O **Cerner**
- O **Eclipsys**
- O **Epic**
- O **GE**
- O **McKesson**
- O **MEDITECH**
- O **Other EMR systems**

EBSCO HOST

Accessing EBSCO's Evidence-Based Content via Electronic Medical Records

Improving service quality and reducing medical errors are critical success factors for health care providers today. Expanding the use of information technology and evidence-based medicine are two key practices being used to achieve these goals. EBSCO enables health care providers to connect these two initiatives and deliver the best available evidence to clinicians at the point-of-care from within the EMR.

EMR Access Options

Customers can access EBSCO content through Allscripts, Cerner, Eclipsys, Epic, GE, McKesson, MEDITECH and other EMR systems, making evidence-based content easily accessible for clinicians directly at the point-of-care. EBSCO's point-of-care resources include both unlimited local and remote access at no additional cost, providing a cost-effective solution for any institution looking to integrate content into their EMR.

Content can be accessed in a variety of ways via EMR systems; however, options will vary from system to system, and institutions should check with their vendor to determine which options are possible.

Examples of access via EMR systems include:

Referential Link

A link configured within the EMR system so that it displays an icon or a menu option on the EMR toolbar, allowing users to access and search EBSCO content.

Key Points:

- Typically configured by the EMR system administrator

- Similar to adding a "favorite" in a browser

- When the link is clicked within the EMR, corresponding content from EBSCO's resources appear in a new window or tab

- The majority of EMR vendors provide this functionality with their core system

- This is often the quickest and easiest way to provide access to EBSCO content via the EMR

Web Service API

EBSCO point-of-care database content can be delivered via a real-time web service.

Key Points:

- Requires configuration by the institution's IT department

- Flexible style sheet control allows content to be delivered with a customized look and feel

HL7 Infobutton

Access EBSCO's point-of-care content via "Context-Aware Knowledge Retrieval (Infobutton)."

Key Points:

- Requires configuration by the institution's IT department/EMR system administrator

- Provides a standard mechanism for EMR systems to submit terms for searches to EBSCO databases

Contextual Search

Access contextually-relevant search results from within various points of the EMR.

Key Points:

- Requires configuration by the institution's IT department/EMR system administrator

- When a user clicks on a term within a patient record, EBSCO content is opened in a new window, providing related information relevant to the selected term

- Some EMR vendors provide this functionality within their core systems, others have a separate module

Visit www.ebscohost.com/emr-access to learn more about these access options.

CASE STUDY—

Incorporating Evidence-Based Content into Care Plans within the EMR at Harris County Hospital District

Harris County Hospital District (HCHD) is a community-owned health care 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 health care 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.

Building Evidence-Based Care Plans

While working to become certified as a Magnet hospital, HCHD established a need to integrate evidence-based nursing practice into the Hospital District's service delivery for all nurses in the system. In 2009, HCHD selected EBSCO's clinical decision support resources *Nursing Reference Center™* (NRC) and *Patient Education Reference Center™* (PERC)—with patient-oriented content available in 17 languages—to deliver the best available evidence at the point-of-care.

With these resources available, HCHD nurses began rigorously consulting thousands of documents from NRC to create evidence-based care plans. The development of the care plans also identified the need to associate appropriate patient education content from PERC with each care plan.

Optimizing and Validating Care Plan Evidence with EBSCO

HCHD partnered with EBSCO Publishing to verify and support the care plans with the appropriate evidence. HCHD's Nursing Director of Clinical Information Systems, David W. Burnett, MSN, RN, shared with EBSCO the complete set of over 50 care plans built with NRC, containing more than 130 unique problems, each with its own goal and goal description (e.g., the goal "Electrolyte balance will be within defined limits" had a goal description of "Baseline EKG will be normal, lab values will be within defined limits. There are no signs of dehydration.").

Burnett wanted the goal description optimized so that it reflected the best available evidence found throughout the evidence-based content in NRC, and was also interested in validating HCHD's interpretations of the evidence in NRC with the nursing experts at EBSCO and Cinahl Information Systems, a division of EBSCO Publishing and content creators for NRC.

Cinahl nursing experts reconstructed the HCHD care plan process—they searched NRC 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 reworded as necessary to allow nurses to easily consume the content. EBSCO also provided links in the care plan to the supporting evidence in NRC, and incorporated links to appropriate patient education materials. Through this process, EBSCO confirmed that the HCHD care plans were appropriate and reflected the latest evidence.

Incorporating Care Plans into the EMR

With the content reviewed and established, Burnett wanted to then load the evidence-based care plans into HCHD's EMR system from Epic Systems Corporation. The vision was that the evidence could be made available relative to the problems and goals created in HCHD's care plans, allowing nurses to have access to relevant information at the right time in their workflow. This access would enable HCHD's 3,000+ nurses to base their patient care decisions on the best evidence, and to continue to improve the overall quality of care.

"Incorporating the evidence directly into our nursing care plans … support[s] our nurses' ability to provide the best quality of care and further demonstrate our commitment to nursing excellence, to our nurses, and the community," said Burnett.

The HCHD care plans, with all of the goals reviewed and links provided for each problem, were delivered in two phases—in phase one, HCHD reviewed the evidence reflected in the goal description and mapping of each problem to NRC for accuracy in care planning, and in phase two, HCHD loaded the care plans to an EMR test environment to ensure optimal functionality. The care plans, along with the persistent links to NRC content, were easily loaded to the EMR. In the fall of 2010, HCHD successfully launched the care plans in the EMR across the three hospitals, with NRC evidence embedded in the goal description and persistent links to PERC included.

"We appreciate the ability to have evidence updates immediately from the persistent links in Epic, without having to build them into the system," said Burnett.

EMR Access Benefits

Today, HCHD nurses can simply click on the "EBSCO Evidence" link within the care plans to access evidence 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.

In addition, applicable patient education content for each care plan topic is loaded into the patient record and accessible when the nurse selects a particular care plan for the patient. This saves time as nurses don't have to conduct a separate search for the same content, and 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 Korean, Vietnamese and many other languages—to improve patient understanding and patient satisfaction.

EMR Access Outcome

Nurses' reaction to the readily-available information has been very positive. Access via the EMR allows for improved care plan documentation—with the evidence embedded in the goal description and additional content on the topic readily accessible through the EBSCO links, nurses can assess the patient's status better and document the goal outcome more accurately.

"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," said Burnett.

With the care plan implementation completed, HCHD has seen great improvement in their documentation, and has started to evaluate the impact by examining outcomes. HCHD also will continue improving documentation as it uses NRC to review and refine the scope of care plans over time.

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

EBSCO's suite of point-of-care resources contain the latest evidence-based information covering relevant clinical, rehabilitation and patient education content, providing doctors, nurses, medical students and other health care professionals with the best available evidence for any and all of their information needs.

DynaMed

Providing the best available evidence for making informed clinical decisions at the point-of-care

- More than 3,200 clinically-organized evidence-based topic summaries
- Daily updates—systematic surveillance of over 500 medical journals and evidence-based sources
- Alerting feature allows clinicians to receive alerts when topics of interest are updated

Nursing Reference Center

The leading nursing reference tool offering evidence-based decision support at the point-of-care

- Provides the best available and most recent clinical evidence from thousands of full-text documents
- Covers conditions and diseases, skills and procedures, patient education, drug information, continuing education, lab and diagnosis detail, and best practice guidelines
- Includes clinically-organized quick lessons, evidence-based care sheets, medical illustrations, nursing guides, CE modules, research instruments, reference books, etc.

Patient Education Reference Center

Evidence-based patient education information for clinicians to print and distribute at the point-of-care

- Handouts are easy to read, include illustrations and are structured to enhance patient knowledge and understanding of material
- Topics include common and chronic diseases and conditions, procedures and lab tests, lifestyle and wellness topics, drug information, and discharge and home care information
- Custom print feature allows clinicians to add patient-specific home care information

Rehabilitation Reference Center

The premier evidence-based clinical reference tool for use by rehabilitation clinicians

- More than 550 *Clinical Reviews*
- Includes research instruments, drug information from AHFS, exercise images, key reference handbooks, guidelines from the National Guideline Clearinghouse, patient education topics (in English & Spanish), and news and clinical updates
- Print customized, branded treatment handouts with exercise images and custom notes

Learn more at www.ebscohost.com/pointofcare

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