Quality Measures

Improving Patient Outcomes and Reducing Costs with EBSCO's *DynaMed™*

DynaMed™ is an evidence-based, clinical reference tool created by physicians for physicians and other health care professionals for use primarily at the point-of-care. Utilizing the best available evidence for clinical decision-making, *DynaMed* can help to improve patient outcomes and reduce health care costs.

Findings from a study released in August 2010, commissioned by the Society of Actuaries (SOA) and completed by consultants with Millimen, Inc., estimate that measurable medical errors cost the U.S. economy $19.5 billion annually. Never has there been a more urgent need for a tool that provides clinicians with the most current evidence to support their patient care decisions. With clinically organized summaries for more than 3,200 topics, *DynaMed* balances the latest content and resources with validity, relevance and convenience, making *DynaMed* an indispensable resource for answering most clinical questions during practice.

Updated daily, *DynaMed* monitors the content of over 500 medical journals on a daily basis through Systematic Literature Surveillance. Because of the currency and quality of the medical content, health care organizations can utilize the information in *DynaMed* to create Clinical Pathways (Care Pathways), which are standards of care used to reduce the variability of clinical practice.

In addition to Clinical Pathways, *DynaMed* can also improve hospital compliance with Core Measures. Core Measures are a set of standardized and nationally accepted performance measures which were developed by The Joint Commission, the nation's predominant standards-setting and accrediting body in health care, with the goal of improving the quality of health care. They were derived largely from a set of quality indicators defined by the Centers for Medicare and Medicaid Services (CMS) and have been shown to reduce the risk of complications and decrease the recurrence of a condition or illness, consequently lowering readmission rates. As hospital administrators are painfully aware, Medicare payments to hospitals with high readmission rates will be reduced beginning in 2012. AMI, CAP and CHF patients who are readmitted within 30 days of discharge fall into this category. *DynaMed* allows clinicians to easily see the relevant Core Measures at the point of care because the Core Measures are listed in the Quality Improvement section of corresponding *DynaMed* topics.

Whether used for the creation of Clinical Pathways, to improve compliance with Core Measures, or to create clinical decision support rules to comply with Stage One Meaningful Use, *DynaMed* ensures that the best available evidence is driving clinical decisions. Critically analyzed information such as this is paramount to improving patient outcomes. Without it, physicians may rely on the information published in medical journals without critical appraisal, as shown in this example, where reported evidence and critically analyzed evidence provide different conclusions:

- **Target HbA1c for patients with diabetes:**
  - The standard of care (most guidelines) suggest target HbA1c < 7%
  - New evidence was reported in NEJM 2008 June 12
  - The NEJM conclusion stated target HbA1c < 6.5% yielded a 10% relative reduction in combined outcome of major macrovascular and microvascular events, primarily a consequence of a 21% relative reduction in nephropathy
  - A doctor reading this conclusion in NEJM would interpret this to mean a lower target reduces overall complications, and especially kidney disease. It would be logical to suggest lower targets to patients.
  - The critically analyzed summary of the same trial (*DynaMed* summary) reports the only "complication" actually reduced was a measure of protein in the urine, not the more severe complications (ending up on dialysis, having an MI, preventing blindness) that were the key reasons we were treating the diabetes

- **Target HbA1c for patients with diabetes (cont.):**
  - The critically analyzed summary also reports that the more aggressive target puts more patients in the hospital—this makes sense because more aggressive sugar lowering means more patients will have low sugar problems which include seizures and passing out
  - Therefore, by limiting reading to the leading journal, doctors could easily choose to make care more aggressive, in turn increasing costs and causing harm, all to achieve the "benefit" that was actually not a clear benefit, as the critical analysis had shown
  - The critical appraisal process can get the article summary back to what matters to patients

Using *DynaMed*, hospitals can reduce the cost of caring for patients simply by making physicians aware of the best available treatment evidence for a medical condition. Even though evidence suggests beneficial care, it is often not done because our health care system is unaware of the evidence, as shown in this example:

- **Vitamin C reduces risk of complex regional pain syndrome following wrist fracture (level 1 [likely reliable] evidence)**
  - Based on randomized trial with 427 wrist fractures published in **J Bone Joint Surgery Am 2007 Jul;89(7):1424**
  - 10% of patients got this complication without vitamin C; such a complication could cost $10,000/year and lead to permanent disability
  - Vitamin C treatment costs $2-4, and prevented this complication for 1 in 13 people treated
  - Every $30-50 spent on vitamin C can prevent $10,000/year and permanent disability
  - This is not something that vitamin C manufacturers will advertise to the general public—the need to know is in a very unique context
  - Why would doctors know this without information support?

With the skyrocketing cost of patient care and preventable medical errors at an all-time high, it is essential that hospitals and physicians have access to the best medical information available in order to care for their patients. Basing clinical decision-making on the higher quality evidence contained in *DynaMed*, hospitals can realize improved patient outcomes and reduction of costs.

To learn more about *DynaMed* and additional evidence-based resources from EBSCO, please contact information@ebscohost.com.

References

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