Clinical Decision Support Revolutionizes Delivery Of Care

Effective use of clinical decision support tools has the potential to expand the capabilities and roles of clinicians in the United States in 2011.

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The statistics speak for themselves. The United States spends almost 50% more per capita on healthcare than any other Organization for Economic Development and Cooperation (OECD) country. In addition, our country ranks 18th out of 19 OECD countries in preventing death before the age of 75. More than 45 million Americans were without healthcare insurance coverage before the passage of the affordable care Act of 2010. As many as 32 million additional individuals will be added to the insurance rolls as the provisions of the Act take effect over the next four years. The baby-boomer generation is just reaching retirement age and the point in their lives when their demand for healthcare services increases significantly. Massachusetts, the leader in healthcare reform and universal coverage, is experiencing a severe shortage of primary care physicians leading to long waits for appointments despite the fact that it has one of the country's highest physician to patient ratios. The American Association of Medical Colleges projects a shortage of 45,400 and 65,800 primary care physicians in 2020 and 2025 respectively.

Although expansion of education and training provides a means to address these shortages in the future, healthcare information technology, properly deployed, offers a significant tool to leverage existing clinical resources now. Intelligently designed clinical decision support, properly implemented among trained staff, expands the capabilities of clinicians at all levels, allowing them to expand the number and types of patients they treat.

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INNOVATIVE USE OF HIT NEEDED

To meet the healthcare needs of our fellow citizens, our healthcare system requires a health information technology revolution, a drastic change in the way we deliver care by utilizing information technology (IT)

in new and innovative ways. Deploying healthcare IT, to replicate the processes and workflows that currently deliver our poor results on so many measures, only guarantees continued suboptimal and unacceptable clinical and financial outcomes.

We must focus on three key areas: 1) Information technology tools, 2) Processes and workflows, and 3) Healthcare provider tasks, duties and responsibilities.

Solutions come from an in-depth understanding of tools, and creative thinking around what each healthcare professional can do and how best to deploy an individual's skill. Valued healthcare IT solutions offer these professionals healthcare IT tools that leverage their unique skills, while organizing the processes and workflows to deliver a consistently high quality, safe, and efficient healthcare outcome.

CLINICAL DECISION SUPPORT EXPANDS ACCESS

Clinical decision support at the point of care plays a significant role in expanding the number of clinicians available to provide primary care. Through such healthcare IT tools, best practices — those that we know from scientific evidence offer the highest probability to produce the best healthcare outcome — can be delivered to each patient by healthcare professionals educated, guided, and "double-checked" by the healthcare IT tool.

Currently, patient delivery relies upon an unreliable system formed from poorly integrated and highly variable human parts. Solutions integrating clinical decision support provide needed support tools that increase the reliability of the human components, while integrating these components through effective processes and efficient workflows. In addition, as best practices change, they can efficiently be delivered through the existing workflow by simply changing the knowledge contained in the clinical decision support tool. Currently, changing practice patterns requires the inefficient, and mostly ineffective, method of targeted medical education.

CHANGING WHAT CLINICIANS DO

Deployment of clinical decision support within healthcare IT systems fundamentally changes what

physicians, nurses and other healthcare professionals do. Physician activities become more challenging on a cognitive level as other routine tasks such as drug dose recall, use of best practice order sets, and drug-allergy checking become automated. Physician expertise is assigned to more important tasks including solving difficult diagnostic problems, devising customized patient treatment plans, and influencing patient adherence to chronic disease care regimens.

Work for nurses and other healthcare professionals changes dramatically too. More tasks, formerly done by physicians or healthcare specialists, are completed by these professionals guided by intelligent processes and workflows that include meaningful healthcare IT. Therefore, the number of qualified clinicians available to deliver quality care increases to meet the demands of the increasing insured population.

Clinical knowledge and experience, normally obtained only through years of study and work, can now be codified in clinical decision support tools that less trained clinicians can apply to their patients. The delivery of care is now standardized around a high level of quality, with outlier patients — those identified as having unusual medical problems and in need of more complex care plans — referred to primary care physicians or physician specialists.

As chronic care patients make up the majority of an ambulatory adult medicine practice, many visits engender monitoring of a patient's medical condition rather than diagnostic activities or significant changes made to therapeutic plans. Reducing the number of these types of patients seen by physicians, frees them up to care for patients requiring higher levels of service.

Expanding the capabilities of all clinicians through the deployment of clinical decision support increases the availability of primary care providers while ensuring high levels of quality care.

The revolution for healthcare providers is inherent in the dramatic change needed in what professionals do and how they do it. Therefore, effective change management techniques must be utilized to facilitate the acceptance of new responsibilities and duties in addition to the new processes and workflows required of these new roles.

FOCUS ON INCENTIVES

Before the expansion of clinician roles achieves widespread adoption, reimbursement policies for all types of providers must addressed. Currently financial disincentives exist for some physicians who "outsource" visits to physician extenders. Payors must team with both large physician groups and small independent practices to construct reimbursement models that allow for the increase in non-physician primary care clinicians while preserving incomes for physicians. These models must include the use of clinical decision support tools embedded in the workflow of deployed electronic medical records. Perhaps the interest in capitated models now seen in accountable care organizations and medical home projects indicates that innovations already exist in this area.

For information technology to play a valuable role in reducing healthcare costs while enhancing quality of care, it must be deployed in a way that completely reinvents how care is delivered, professionals provide the care, and technology is leveraged throughout care delivery. In 2011, progressive organizations will effectively allocate their investment in healthcare IT by utilizing clinical decision support to expand the effective and efficient use of their clinical staff.

Editor's Note: More information on products and services providing clinical decision support capabilities can also be found in the Technology Marketplace section starting on page 25.

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