

Therapeutic pathways embedded in EHR to improve cancer care

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A new oncology alternative payment model (APM) uses treatment and diagnostic pathways embedded in a practice's electronic health record (EHR) to manage a "tsunami of data." It also seeks to go further than providing effective treatment supported by a sustainable payment system.

Its developer aims to "provide a toolkit for transformation to a value-based system" that other specialties could follow.

"I just want to change health care—that's all," said Barbara L. McAneny, MD, whose company's proposed APM, Making Accountable Sustainable Oncology Networks (MASON), was recently endorsed by a Health and Human Services (HHS) advisory panel.

The Physician-Focused Payment Model Technical Advisory Committee (PTAC) determined that MASON met all 10 of the HHS criteria for APMs and recommended that it be further developed and implemented as a Center for Medicare and Medicaid Innovation (CMMI) payment model.

MASON builds off the Community Oncology Medical Home model—called Come Home—developed by Dr. McAneny that was supported by a \$19.77 million CMMI innovation award. Used by seven community oncology practices across the U.S., Come Home was found to cut emergency department visits and lower oncology care costs by \$2,500 per patient.

MASON is a personal endeavor for Dr. McAneny—the AMA's president through June 2019—in her private role as CEO of Albuquerque, New Mexico-based Innovative Oncology Business Solutions. But, while independent of the Association, the project follows the AMA goal of making information technology an asset in delivering care and not a burden. MASON received the AMA's endorsement.

"Patients will benefit greatly from the intensive care coordination and reliance on evidence-based clinical pathways," wrote AMA Executive Vice President and CEO James L. Madara, MD, in the AMA's letter to PTAC.

The proposal also received letters of support from the American Society of Clinical Oncology and the National Committee for Quality Assurance.

Managing “tsunami of data”

MASON uses diagnostic and treatment pathways embedded in the EHR system. It also uses both clinical and claims data to create oncology payment categories to set accurate and transparent cost targets based on factors that physicians can control.

Claims data will be used to identify cost variations for similar patients, while clinical data will be used to explain those variations, Dr. McAneny said. This could lead to further subclassifying of patients or identifying peripheral causes for differing costs.

The idea is to take a multitude of data from a variety of sources from which useful comparisons can be made on the toxicity, outcomes and costs of different treatment regimens. An eventual goal is to develop a predictive model to implement data-driven bundled oncology payments.

“Pathways, created by physicians and based on National Cancer Care Network guidelines, provide trusted decision support to manage the tsunami of data as genomics and socioeconomic factors are incorporated into treatment decisions,” the proposal for MASON submitted to PTAC stated.

“Oncology is the perfect place to start this,” said Dr. McAneny. “Pathways are essential for the future of oncology and are a useful tool for any specialty that uses new biological agents.”

Oncology is a specialty taking a lead role in genomic-based therapies, she added. So, decision support is necessary because “no one can remember all the genes that have alphabet-soup names.”

An 80 percent target has been set for pathway compliance. Total compliance is not desired, Dr. McAneny explained, because patients are different and they have different preferences.

“The pathways can be modified, so this is not ‘cookbook medicine,’” she added.

This aspect helped meet the HHS criterion for flexibility.

Working around EHR shortcomings

There are significant IT challenges ahead, however. For one, EHRs are typically not designed for pathways and require a “workaround” to get them embedded, Dr. McAneny said.

The proposal acknowledged that “significant software and data science work” will be required to obtain Medicare claims data and to automate EHR data extraction. EHR interoperability concerns between participating practices will need to be addressed so advanced IT functions such as machine learning and virtual accounts can be used.

Dr. McAneny remains confident that the IT needs will be met.

“This is complicated data science, but we use data science for everything now—from Facebook to advertising,” she said. “We just need to make it work clinically.”

Charles Rath, the CEO of Dr. McAneny’s data science partner RS21, agreed.

“Advanced technologies in the fields of cloud-based computing and data science are allowing us to combine and analyze vast amounts of information instantaneously,” Rath said. “We’re using similar techniques to understand the social determinants of health or even to predict the impacts of hurricanes.”